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Experience Life

LIFE TIME®

July/August 2022



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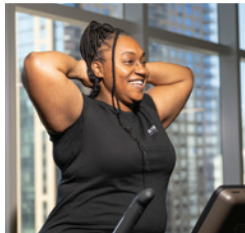
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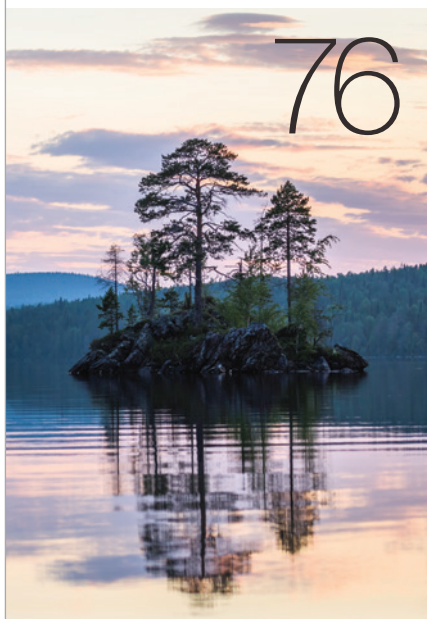
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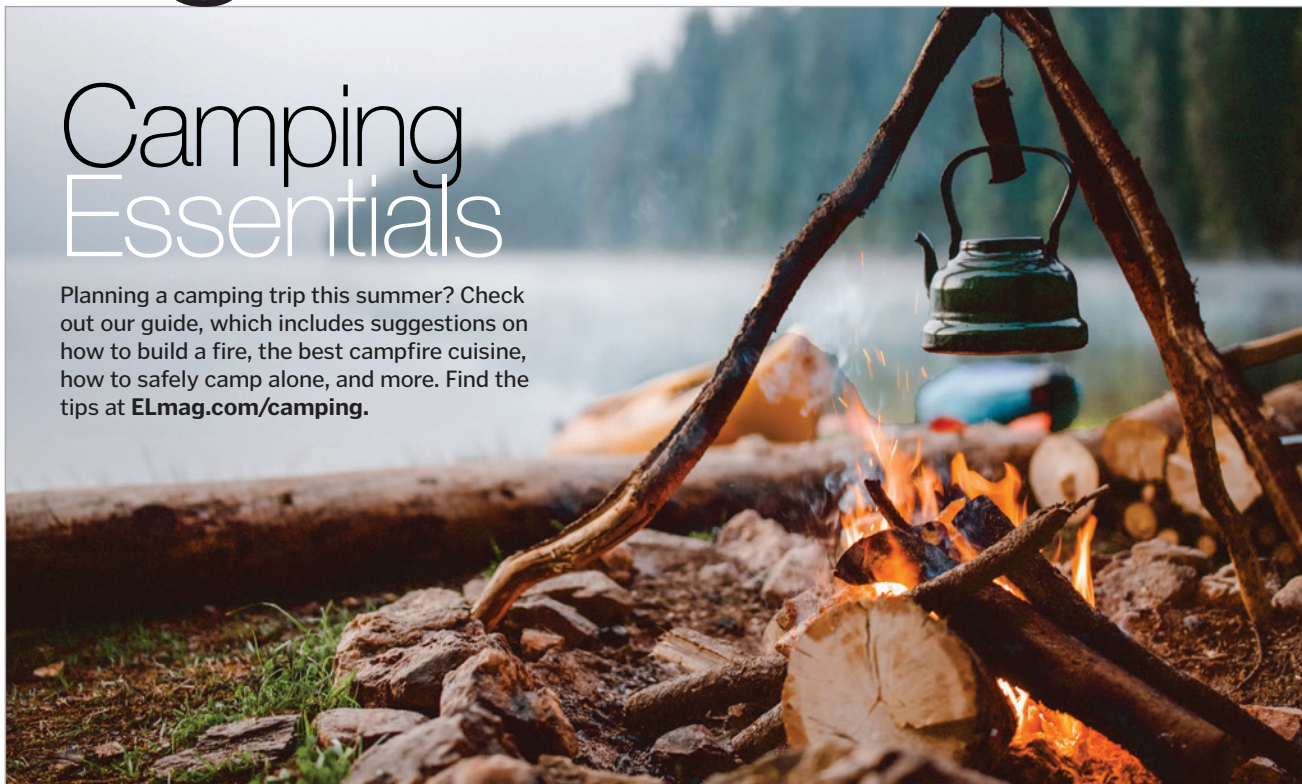


Experience Life Digital

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Camping Essentials

Planning a camping trip this summer? Check out our guide, which includes suggestions on how to build a fire, the best campfire cuisine, how to safely camp alone, and more. Find the tips at [ELmag.com/camping](https://www.ELmag.com/camping).



WIN
THIS!

Crystal Clear

Whether you're exploring vibrational medicine or simply looking for a decorative accent for

your home, opt for ethically sourced crystals like this celestite from Cosmic Child. Originally from Madagascar, this crystal is 5 inches by 6 inches. Sign up for your chance to win it at [ELmag.com/julyaugust](https://www.ELmag.com/julyaugust) giveaway.



LOW-MOSQUITO GARDEN

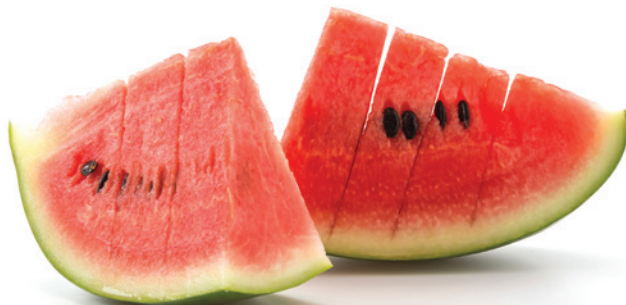
Ditch chemical-laden repellents and keep mosquitoes at bay by planting lemon balm, marigolds, basil, and more in your backyard. [ELmag.com/mosquitoes](https://www.ELmag.com/mosquitoes)

TRAIL-RUNNING TIPS

Up your trail-running game with these expert drills and gear recommendations. [ELmag.com/trailrunning](https://www.ELmag.com/trailrunning)

SEASONAL EATING

It's better for gut health to eat cooling foods like watermelon and cucumber in the summer. Learn why at [ELmag.com/seasonaleating](https://www.ELmag.com/seasonaleating).



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LIFE TIME
HEALTHY WAY OF LIFE



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I'm eager to stumble upon some unexpected scenery and roadside charms. **And I'm committed to letting the unknown create possibilities we couldn't have predicted or imagined."**



YOUR THOUGHTS?

Email us at experiencelife@experiencelife.com.

The Open Road

You know how sometimes you find inspiration in unexpected places? On a recent morning, while I was preparing a cup of tea, this quote on the tag of the tea bag grabbed my attention: "The unknown is where all outcomes are possible; enter it with grace." These words have been hanging out in the back of my mind ever since.

I am a planner by nature, so the unknown is a place or scenario I've tended to avoid. I'm not one who likes the vulnerability of stepping into unfamiliar situations without plenty of information, background, or a wingperson. And I often hold myself to unrealistic standards: I feel like I don't show up as fully as I could have had I known the full scope of what was ahead. If only life came with a crystal ball.

But life is full of all sorts of unknowns, and they've forced me out of my comfort zone more times than I can count. In most cases, I've made connections or discoveries that opened the door to new possibilities, new interests, and new hobbies. (My skiing adventure in Breckenridge, Colo., is a prime example of this — read all about it at ELmag.com/skischool.) There are only a handful of times that I've come away from a new experience with regrets or wished that I'd stayed home.

And while that largely positive track record doesn't always make the next new thing easier to face, it does help moderate the intimidation of trying.

One of the most effective ways I've found to embrace the unknown is through travel, which, by its nature, forces me to be more open to the novel and unfamiliar. For instance, I'll never forget my first trip to New York City: It was for a work conference, and I was equal parts terrified and exhilarated about visiting one of the world's biggest cities. After a couple of unexpected hiccups en route, I found my bearings and had so many amazing experiences. That trip has since inspired several return visits — and given me a sense of confidence about spreading my wings there and elsewhere.

As it has for so many, my travel has been limited these last few years, but I'm excited about some upcoming trips, including plans for a first-ever Martin-family road trip, from the Twin Cities, Minn., to Asheville, N.C., this summer. Vacations are one of the few things I *don't* plan for our family, and I have only a vague idea of what my husband has mapped out.

While I know a few of the activities on our itinerary once we get to Asheville — hiking, whitewater rafting, and horseback riding — I have no clue what route we're taking to get there, how our kids will handle the drive, where we're staying. And for once, I'm actually looking forward to seeing how it all organically unfolds out there on the open road — to taking any detours and inevitable fights in stride, to letting go of expectations of how things "should" be going, to simply being present.

I'm eager to stumble upon some unexpected scenery and roadside charms. And I'm committed to letting the unknown create possibilities we couldn't have predicted or imagined.

As you move through your days this summer (and all through the year), I hope you can be open to the unknown and its opportunities. Perhaps this issue will inspire you to try a new sport, like pickleball (check out page 16), or a challenging new workout (see page 28). Maybe your unknown will be something relatively simple, like experimenting with a new recipe (turn to page 48), or something more complex, like quitting that thing that no longer brings you joy (flip to page 72).

The possibilities truly are endless. So let's make the best of the ones we encounter — and give ourselves the grace to show up just as we are.

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.

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Talk to Us



GROWING & LEARNING

✉ “Gardening With Native Plants” (April 2022) was wonderful! I’d like to add one additional *amazing* thing about this type of gardening: You get to make a huge change to help our planet, help local ecosystems, and help the pollinators and creepy-crawlies that we share our planet with and depend upon.

Sometimes it can feel like the changes we make in our own lives aren’t having a large-enough impact (or any at all), and any impact we are actually having can’t be seen or experienced in real time. But gardening with native plants is a change that you get real results for in real time.

The moment you plant native flowers and shrubs is *the moment* you see more bees and butterflies floating around your yard. There’s no other change to our world you can make and see such immediate results. If you plant it, they will come.

Erinn

f I love my community garden; it’s located near a university, and there is a lot of diversity (“The Power of Community Gardens,” March 2022). I have learned so much about other countries, their cultures, and their food. I have eaten things I have never heard of. I get quite an education myself.

Holli B.

A TRUE COMFORT

🎧 Jason Mraz has been a true comfort throughout many years (“Seeds of Hope,” April 2022). His songs seem to come into my life just as I need them. His voice, words, and playing have affected me in a positive way. I’m thankful for his presence.

Nancy D.

MOVEMENT CHOICES

📱 I love this empowering reminder (“To Step or to Jump?,” April 2022). So important! Our choices during transitions create our future. Love the energy you bring to this beautiful life.

@amandabeilke

✉ I just finished reading “A Simple Secret to Better Running” in the April 2022 issue, which recommends listening to music while running to distract yourself from the exercise, making it feel easier. I believe running and walking (biking too) are very dangerous with earbuds in both of your ears. You cannot hear anyone coming up behind you, like bikes, other runners, emergency vehicles, predators, etc.

It would be beneficial in future articles like this to suggest putting only one earbud in if you want to listen to anything while you exercise outdoors.

Laurie C.

MENTAL WELL-BEING

🧘 “Rumination” is a word that I have thought about in the past, when my mind runs its endless cycle of obsessive thoughts and concerns (“How to Free Yourself From the Cycle of Rumination,” March 2022). I am curious about the supplements Henry Emmons, MD, recommended; I would like to start taking a few to help with my mind. The only time I’m not worrying is when I’m exercising, which is one of his recommendations to reduce rumination. Overall, a spectacular article!

Rosa M.

🧘 Quiet time is necessary to finding balance. I find that some people confuse high energy with a nervous compulsion to be busy. Your article (“The Power of Stillness,” January/February 2022) reminds us to “get lost” and find ourselves. The inner happiness we can find is the key to happiness.

I have been finding ways to try to get that quiet time by spending time in the woods, going for walks in the early morning, and meditating. Thanks to Dr. Emmons for sharing his family stories. His kids are lucky to learn these essential life skills.

Steven K.

BACK TO THE FUTURE

✉ I was straightening up a pile of papers that had accumulated over the past couple of years when I came across my unread issue of *Experience Life* from October 2019. I sat down that night to go through it and was curious to catch a glimpse of life right before COVID.

I was halfway through reading Dara Moskowitz Grumdahl’s article “Is It Ready Yet?” when I literally got chills and almost started to cry. She begins to talk about the philosophy of time and of our current (well, current in 2019) state of busy-

ness. She compares modern-day humans to sharecroppers, always working and never able to slow down. “The thing . . . is to realize the importance of experiencing time in some other way than if we just simply have to be catching trains all the time or catching planes all the time,” she quoted from Thomas Merton.

Holy moly! If Grumdahl had only known how much time we would all soon be having. She ends the article with these words that are so foretelling: “We were ready for time to just sink into the background for a bit, so everything else in the world — like family and dinner — could be most important for a while.” Thanks for your wonderful magazine.

Jill G.



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The New Science of TBI Recovery



Have you ever hit your head so hard you felt foggy, jittery, anxious, dizzy, easily startled? These are among the symptoms of a concussion and more severe levels of traumatic brain injury (TBI).

Most of the estimated 1.5 million Americans who sustain a head injury each year recover in about a month as neuroinflammation recedes, according to the Centers for Disease Control and Prevention. But for about 10 to 20 percent of people who've had a head injury, such symptoms (known broadly as postconcussion syndrome, or PCS) linger for months, years, or sometimes the rest of their lives.

Healthcare experts now understand that a brain injury can tweak the brainstem, an area that oversees our primitive reflexes — reflexes critical for our development and survival in early life. These include the mechanics involved in rolling over and crawling, eye-hand coordination, balance, head movement, and the Moro, or startle, reflex, which is an early version of the fight-or-flight response.

“As your brain develops and your frontal lobe starts to kick in, these reflexes are basically in the background, but they're still there — and they re-emerge with brain trauma,” explains Jeremy Schmoie, DC, DACNB, founder and director of the Functional Neurology Center in Minnetonka, Minn. “It's common for patients post-TBI

to develop issues with gait, balance, autonomic dysfunction, eye-tracking difficulties, cognitive dysfunction, dizziness, vertigo, startle reflexes, and sensory overstimulation.”

In addition, those with PCS may have “sudden difficulty with reading, handwriting, cross-body movements, balance and coordination, and behaviors such as increased fidgeting or difficulty sitting still and concentrating,” says Lauren Ziaks, PT, DPT, cofounder of Phoenix Concussion Recovery in Park City, Utah.

In the past, concussion recovery focused on rest and time. “The traditional management of concussion mandated complete physical and cognitive rest,” explains William Mullally, MD, in a 2017 report in the *American Journal of Medicine*.

But a new understanding of the brain's neuroplasticity — the ability of the brain to grow, adapt, and change throughout our lives — has led to new therapies to treat PCS.

• **COGNITIVE REHABILITATION THERAPY (CRT)** focuses on memory games and other brain exercises to rebuild memory functions and rehabilitate attention span. CRT can also help patients cope with persistent issues involving problem-solving, speech and communication, reading and writing, spatial perception, and executive-function skills.

• **PHYSICAL REHABILITATION THERAPY** uses exercises to restore balance, gait, and other motor skills. Therapists also use gaming and

virtual-reality tools as an adjunct to physical therapy.

• **FUNCTIONAL-NEUROLOGY THERAPY** integrates strategies to help re-coordinate your primitive reflexes. It begins with a wide-ranging neurological exam of reflexes, including your balance, posture, gait, eye movement, pupillary response, hand grasp, rooting reflex, and more. Based on your response, the therapist creates an individualized regimen.

“We've found that we can speed the recovery process up if we get more specific with working on right-brain, left-brain and not being so generalized,” Schmoie says. Therapies can rehabilitate eye-hand coordination as well as the vestibular system and sense of balance. Patients lie on a tilt

table or sit in a GyroStim multiaxis rotating chair to calm their autonomic nervous system and startle response. Schmoie also uses low-level laser therapy to improve blood flow and reduce brain inflammation, plus hyperbaric oxygen to improve oxygenation in the brain. Such techniques, he says, help “stimulate the brain, to bring the frontal lobe back online and get people thinking quicker.”

Functional neurology can begin soon after a brain injury — or even years later, he explains. “You can still make improvements to the brain after having a concussion 10 years ago. Your brain's very plastic in the way that it can adapt.”

— MICHAEL DREGNI

“You can still make improvements to the brain after having a concussion 10 years ago. **Your brain's very plastic in the way that it can adapt.**”



LEARN MORE

For a Q&A with Jeremy Schmoie, DC, DACNB, see ELmag.com/tbi.



What's Your Diet's Carbon Footprint?

Every time you raise your fork, you can take a bite out of the climate crisis. That's the message from two recent studies analyzing the carbon footprint of various foods.

Researchers from Tulane University and the University of Michigan surveyed 16,800 Americans on their daily eating habits and then calculated the effect of replacing one high-carbon food with a more sustainable option. Their report was published earlier this year in the *American Journal of Clinical Nutrition*.

"People can make a significant difference in their carbon footprint with very simple changes," says lead author Diego Rose, PhD, MPH, a professor at Tulane's School of Public Health and Tropical Medicine.

Researchers found that beef has the largest carbon footprint in a person's diet, emitting almost six times the amount of greenhouse gas of pork. And 19.8 percent of survey respondents reported eating at least one serving of beef daily.

Choosing a serving of chicken, turkey, or pork rather than beef, the study authors calculate, can reduce your daily diet's greenhouse-gas impact by 48 percent and water-use impact by 30 percent.

Most veggies and fruit have relatively low footprints. Still, asparagus and some other vege-

tables require large amounts of water. Choosing peas instead of a serving of asparagus, for instance, could result in a 48 percent decrease in water use.

Similarly, choosing peanuts instead of almonds as a daily snack could provide a 30 percent water-use saving. Other thirsty plant-based foods include grapes and broccoli; swapping them out for apples and Brussels sprouts can provide substantial savings.

A 2018 *Science* meta-review of 570 studies analyzing data from about 38,700 farms in 119 countries reinforces the climate costs of beef and other animal products. These foods provide 37 percent of protein and 18 percent of calories worldwide but use 83 percent of global farmland and are responsible for 56 to 58 percent of food-related emissions, the authors write.

Even "lower-impact" animal products, like eggs, poultry meat, and some farmed fish, have a much larger carbon footprint than vegetable sources of protein, such as soy, legumes, peanuts, and grains, they note.

Curious about what you eat? Try the Climate Change Food Calculator based on the *Science* study at bbc.in/3kvSZXp.

— MICHAEL DREGNI

EASING ANXIETY With Exercise

People suffering from chronic anxiety — and those who hope to avoid it — may find some calm by ramping up their physical activity.

Scientists led by researchers at Sweden's University of Gothenburg recruited 286 patients diagnosed with anxiety disorders — about half of whom had had the condition for 10 years or more — and assigned 149 participants to one-hour workout sessions of varying intensity three times a week for 12 weeks. Compared with a control group that didn't exercise, most of those who worked out reported lower levels of anxiety symptoms when the study concluded.

And the relative intensity of the workout sessions seemed to make a difference. "There was a significant intensity trend for improvement," notes doctoral student Malin Henriksson, who led the study. "That is, the more intensely they exercised, the more their anxiety symptoms improved."

That might explain why competitors in Sweden's legendary Vasaloppet cross-country skiing event tend to stay calmer than most. The annual races, ranging from 30 to 90 kilometers, attract thousands of skiers every year, an extremely fit cohort researchers used in another recent study to measure the ability of exercise to fend off anxiety issues.

As Gretchen Reynolds reports in the *New York Times*, a team led by Tomas Deierborg, PhD, collected information from nearly 200,000 Swedes who participated in one of the races between 1989 and 2010 and then cross-checked that data with the Swedish National Patient Register to see how many of them had received a diagnosis of clinical anxiety disorder in the 10 to 21 years following their race. Compared with the same number of randomly selected Swedes who did not ski the Vasaloppet, the skiers had about a 60 percent lower risk of developing the disorder.

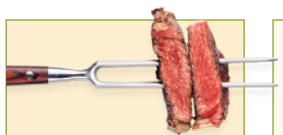
But you don't have to match the intensity of these elite skiers to cultivate some calm, Deierborg says. Even 30 minutes of brisk walking has "good effects on your mental health."

— CRAIG COX

Replacing a serving of asparagus with peas can result in a **48%** decrease in water use.



19.8% of survey respondents reported eating at least one serving of beef daily.



Selecting peanuts instead of almonds as a daily snack can provide a **30%** water-use saving.



THE CASE FOR More K

Increasing our intake of vitamin K may hold a key to heart health.

The vitamin comes in two forms: K1 is plentiful in leafy greens; K2 is found in fermented foods, like cheese. U.S. dietary guidelines recommend a combined 120 micrograms (mcg) of K1 and K2 per day for men and 90 mcg for women. But recent research from Edith Cowan University suggests that ramping up our K intake beyond those guidelines may reduce our risk of developing atherosclerosis.

Analyzing average daily vitamin K consumption among more than 50,000 participants in the Danish Diet, Cancer, and Health study over a range of 17 to 22 years, Nicola Bondonno, PhD, and her team observed that those with the highest intake of K1 were 21 percent less likely than participants eating lesser amounts to be hospitalized because of atherosclerosis-related heart disease.

People with higher intakes of K2 were 14 percent less likely than participants eating lesser amounts to be hospitalized with the condition.

“Current dietary guidelines for the consumption of vitamin K are generally only based on the amount of vitamin K a person should consume to ensure that their blood can coagulate,” explains Bondonno. “However, there is growing evidence that intakes of vitamin K above the current guidelines can afford further protection against the development of other diseases, such as atherosclerosis.”

— CRAIG COX



Gardens That Heal

Q&A WITH JULIET BLANKESPOOR



We often think of sage, basil, mint, and other common garden herbs as ingredients for home-cooked meals. But they're also useful ingredients in herbal medicine. In her book, *The Healing Garden*, Juliet Blankespoor shares tips on growing and harvesting herbs and crafting herbal remedies at home.

Botanist Blankespoor, founder of the Chestnut School of Herbal Medicine, explains how to start an herbal garden and cultivate plants to harvest; how to process, dry, and preserve botanicals; and how to make use of these botanicals as food or herbal medicine — whether pesto and vinegar or cough syrups and salves.

We spoke with Blankespoor about *The Healing Garden*.

Experience Life | Are there herbs we might already have in our gardens or kitchens without knowing their medicinal uses?

Juliet Blankespoor | All of our classic culinary herbs possess an array of medicinal uses. Basil, rosemary, thyme, fennel, cardamom, cinnamon, turmeric, garlic, mint, lemongrass, and sage all boast profound healing qualities.

Many of these kitchen staples are antimicrobial: They protect you from food-borne pathogens and parasites; before the age of refrigeration, they enhanced food preservation. Likewise, most are anti-inflammatory; they support your heart, nervous system, and whole-body health. Plus, plenty are carminative, which means they nurture easeful digestion and reduce intestinal gas. And this is just the tip of the iceberg.

In the backyard and garden, you'll likely (fingers crossed!) find a richly nutritious cast of herbal characters, including dandelion, chickweed, plantain, violet, and lamb's quarters. Beyond their supremely nourishing qualities, many of these “weeds” are cleansing and detoxifying; they support kidney, liver, skin, endocrine, and reproductive health. These “backyard medicines” are among my favorite and most relied-upon herbs of all time.

EL | How would you recommend starting an herb garden?

JB | One of my favorite strategies is to grow plants that clamber and climb; they make the most of vertical space when horizontal ground is at a premium. Passionflower, hops, climbing roses, and raspberry canes can all be trained to grow upward along walls, fences, and trellises.

Try growing plants that can be harvested many times throughout the year.

Growing herbs in pots or other containers is another brilliant solution. Some of my favorites include lemon verbena, gotu kola, white sage, calamus, lemongrass, ginger, turmeric, and aloe vera.

Most people will be amazed at what they can grow on a sunny windowsill or balcony. Container gardening is highly underutilized, in my opinion, and offers an incredible opportunity for growing beautiful, productive medicinal and culinary herbs indoors.

— MARCO DREGNI



START GROWING

For more from Juliet Blankespoor on backyard medicine, see ELmag.com/healinggardens.

Talking About Mental Health



It's hard for Max to pinpoint exactly when his mental health began deteriorating. Was it when he quit the swim team in high school? When he started avoiding friends? Either way, by his sophomore year at the University of Wisconsin–Madison, Max was failing all his classes and barely leaving his dorm room.

Yet when his parents called to check in, he'd say everything was fine. Minimizing — or denying — his decline seemed safer than being honest.

"I believed that revealing my situation would only lead to shame and embarrassment," he recalls.

People coping with mental-health issues often feel like Max. Awareness of mental illness has surged in recent years, but stigma casts a long shadow — and it can be a major barrier to getting help.

Understanding and overcoming stigma is a first step. And deciding when, how, and whom to ask for help is its own challenge — and reward.

The Many Faces of Stigma

Stigma comes in various forms. One is perceived stigma: our beliefs and assumptions about society's negative perceptions. But stigma also resides within us. Personal stigma describes an individual's own negative assumptions and beliefs about an issue, and it's often the byproduct of internalized societal stigma, also known as self-stigmatization.

People from certain demographics are more likely to hold stigma beliefs — and therefore less likely to seek help. Research is inconclusive but suggests that people of color, particularly African Americans and older or less acculturated Latin Americans, are more apt to carry stigma related to mental health.

Gender also informs stigma: Adolescent males are more likely than young women to hold personal stigma beliefs about mental illness.

Arguably more important than gender or race is an individual's lived experience. Those with greater knowledge of or contact with mental illness — having a friend or family member who suffers from a mental-health disorder, for example — are less likely to hold personal stigma.

Perceived stigma, however, is more common among individuals with the most direct type of lived experience: those who actually cope with a mental illness, like depression. In other words, people who know someone with a mental-health disorder are less likely to negatively judge the condition; those who have the condition are more likely to assume others will negatively judge *them*.

This dichotomy helps explain why Max was wary about disclosing his depressive symptoms to others — or even acknowledging them to himself.

For a while, he sustained the image of a healthy, functioning college student. He hid his grades and lied about how he spent his weekends.

Then the COVID-19 pandemic hit. He was forced to move back in with his parents, and to face, at long last, what he'd been avoiding.

Asking for Help

Once we acknowledge that we need help, we can take the next hard step: asking for it. And ideally, we should ask for support before things get dire.

When deciding whom to confide in, consider both context and character. Is the person you're considering approaching a peer or someone in a higher or lower position of power? How long have you known them? How have they responded in the past when you or someone else disclosed something personal? Have they ever disclosed anything personal to you?

These kinds of conversations are most helpful when we let the other person know what we need. Sometimes, it's just a listening ear, and if that's the

case, say so. Often people go into "fix-it" mode when they aren't sure how to help — a well-intentioned response, to be sure, but not always well received.

Sometimes we need the other person to hold us accountable in some way: supporting our sobriety by not offering a drink, for example, or encouraging social engagement by scheduling get-togethers. If this is the case, ask for what you need but be respectful of the other person's boundaries. They have the right to set limits.

It's also entirely appropriate to ask for assistance accessing professional help. In fact, depending on the severity of the problem, this may be the best option.

That was the case for Max. After he'd moved back into his family's home, his mom grasped the severity of his situation. "What came next was life changing," he recalls.

Max's family helped him join a treatment program, which provided invaluable skills and support. More important, he realized how much his family cared about him. "I was shocked by how caring my family was, which sounds weird in retrospect. I mean, *they're my family!*"

After completing treatment, Max returned to school. And he continued attending biweekly support groups.

Looking back on his experience, he wishes he'd asked for help earlier. "To not reach out for help is to say, 'I want my life to continue in the way it is,'" Max explains. "If your situation is anything like mine was, then it's hard to imagine that asking for help will lead to your life changing for the worse." 📌

— ALEXANDRA SMITH, MA, LPCC



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For a longer version of this article — plus info on mental-health rights at work — see [ELmag.com/mentalhealth](https://www.ELmag.com/mentalhealth).

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PICKLEBALLER



He's one of the top-ranked players worldwide, but Ben Johns still finds simple joy in pickleball.

BY MICHAEL DREGNI

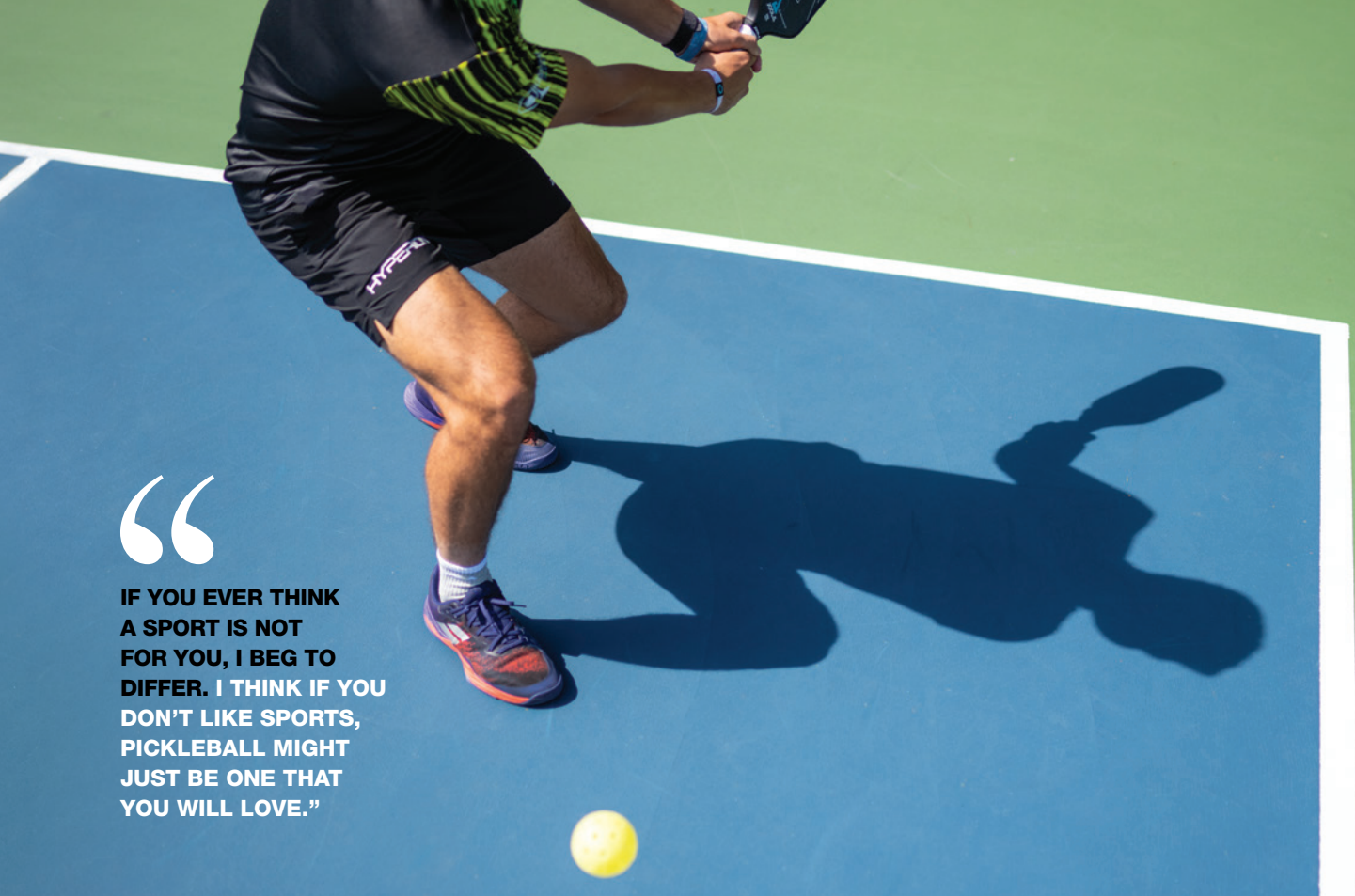
Pickleball appears to have a special kind of magic. Many people start out playing the sport as a game, only for it to become a passion — and sometimes even an obsession. Just ask Ben Johns.

Raised in a baseball-loving family in Laytonsville, Md., Johns also tried his hand at tennis and table tennis. Then he picked up a pickleball paddle, and the obsession took hold.

Now, at age 23, Johns has already been hailed as a legend in the sport by the Professional Pickleball Association (PPA). He's one of the top-ranked players in singles, doubles, and mixed doubles, according to the PPA, World Pickleball Rankings, and Global Pickleball Rankings. He's won more than 50 gold medals, including 14 triple crowns (winning singles, doubles, and mixed-doubles pro events in the same tournament).

And it all began for Johns when he was 16 and took up a paddle for the first time during a family winter trip near Naples, Fla., a pickleball hot spot.

"It kind of seeped into my life," he recalls during a recent *Life Time Talks* podcast. "Just like most think they're just doing a hobby — and then suddenly it's their full-on addiction. They get fanatical about it, and they don't want to stop playing. And that's so awesome to see, because it's like the healthiest addiction I've ever seen, you know?"



“

IF YOU EVER THINK A SPORT IS NOT FOR YOU, I BEG TO DIFFER. I THINK IF YOU DON'T LIKE SPORTS, PICKLEBALL MIGHT JUST BE ONE THAT YOU WILL LOVE.”

A Sport for All

Although many people consider pickleball relatively new — it's been hailed as the world's fastest-growing sport — it actually originated back in 1965. That's when Washington State congress member Joel Pritchard and his businessman friend Bill Bell watched their families sitting around with nothing to do at Pritchard's home on Bainbridge Island, near Seattle.

The property had a disused badminton court but no rackets, so they scrounged up some Ping-Pong paddles and a perforated plastic ball, and everyone played. It was an instant hit.

They soon hashed out rules for their impromptu game, relying heavily on those of badminton. And the name? According to lore, the game may have been dubbed pickleball in honor of the Pritchards' cocker spaniel, Pickles, who also joined in by constantly stealing the ball.

What's believed to be the first pickleball tournament was held in 1976, in Tukwila, Wash. In 1984,

the first rule book was published. From there, the sport was ready for prime time — and its popularity has grown exponentially.

Some see the game as a “sport for old people,” Johns admits. That's very true, he adds — and very deceptive.

“The really cool thing about it is it's a sport for most everybody,” Johns explains. “I've seen 5-year-olds play and enjoy it. I've seen 90-year-olds play and enjoy it. Gender — it's a fairly even distribution there. Socioeconomic status, culture — it just doesn't matter.”

“And I feel like that's why I've met more unique and interesting people in pickleball than I have in any other aspect of my life,” he continues. “So, if you ever think a sport is not for you, I beg to differ. I think if you don't like sports, pickleball might just be one that you will love.”

The “Unsolved” Sport

Johns studied materials engineering at the University of Maryland, but now he's focused on pickleball tourna-

ments and jets off to pickledomes around the country.

During the pandemic, the number of Americans hitting a pickleball grew by an astonishing 39.3 percent. And according to a 2022 report, the Sports and Fitness Industry Association estimates that 4.8 million Americans play the sport. Plus, there's now an International Federation of Pickleball, many of whose member nations joined within the last three years. Some players are out for fun and games; others, like Johns, compete in tournaments.

“I just happened to be vacationing very close to the first U.S. Open Pickleball Championships ever, in 2016,” he remembers. That tournament, held in Naples, Fla., was his first.

Since Johns was “pretty good,” as people told him, he decided to sign up in the pro category. “If I lose really badly, that's fine; I'll still be able to say I did it,” he told himself at the time. He finished in fifth place.

He started playing pickleball every day — the obsession had truly kicked

On the Cover

in. The next year, he returned to Naples and won the 2017 U.S. Open.

From there, his trajectory continued upward. In 2019, he signed the sport's first-ever endorsement deal. His signature paddle was made by Franklin, a sports manufacturer that has worked with the likes of Joe Namath, Dan Marino, and Barry Bonds. And the accolades grew ever louder: Pundits labeled him "the present (and future) of pickleball." *InPickleball* called Johns "the one to watch" and suggested he could be the breakout star who lifts the sport into mass cultural consciousness.

All that's heady stuff. So, how does Johns keep his eye on the ball? By focusing on the fundamentals.

It's all in the legs, he explains: Squats are his favored exercise for pickleball prowess. "No question. Every day is leg day. It makes every other exercise way better."

Still, he confesses he hates running. "Running is rough for me — and that's funny because, I know, it's legs and I play pickleball and you do a lot of running. But I would rather do swimming for cardio than running. I can't do it!"

As to what makes him such a pickleball natural, Johns believes the eye-hand coordination that he honed playing baseball, tennis, and table tennis is key.

But there's also something fresh and unformed about pickleball that he loves.

"Pickleball is what I call an 'unsolved' sport," he notes. "Everyone's still very much figuring out the good things to do: How do you play this sport at its optimum? And nobody's really figured that out — it's currently developing."

"Year to year, you see different strategies, players picking up different things, and we're all learning from each other. And one of the things I've always done best — not just in pickleball but in any area, really — is just experiment and learn things based on trying new things. So, I keep adding new things and getting better because of that."



I COULD SEE PICKLEBALL, IN 10 TO 15 YEARS, BEING THE SPORT TO PLAY, NO MATTER WHAT YOU DO — AND THAT'S WHERE I'D LIKE TO SEE IT."

Pickleball Utopia

Even with the status and pressure of being top-ranked, Johns still finds joy in playing his chosen sport.

And he's already off and running as a serial entrepreneur managing a growing portfolio of ventures: the instructional-video company Pickleball 360 and a travel agency named Pickleball Getaways, with sport-centric resort vacations.

In April 2022, he signed a new sponsorship deal, this time helping JOOLA, a maker of table-tennis equipment, enter the pickleball realm.

How does he balance it all?

"Even before pickleball, I never thought I was going to be a nine-to-five type of person. I always wanted to run my own business and apply the things I learn personally rather than for somebody else," he explains.

"So, it's not shocking to me that I'm doing this now; it's just funny that pickleball played such a large role in it. I just earned my materials-engineering degree, and I hope to use that down the road — maybe it's with designing paddles, maybe it's with something else, but I'm sure I'll apply it somehow. But the professional side — the performance and staying in tiptop performance shape — is going to be my primary focus."

As for the future of pickleball, Johns believes the sky's the limit.

"It's so hard to predict, because just in the past three years it's come such a long way," he says. "But how I see pickleball in my utopia is that it's going to be a sport that everybody has heard of in the world that almost everybody wants to play for whatever reason. Everybody watches the NFL, but not everybody plays."

Not surprisingly, there's talk of pickleball becoming an Olympic sport. With its current rate of growth, it could be a contender for Paris 2024 or Los Angeles 2028.

"I could see pickleball, in 10 to 15 years, being *the* sport to play, no matter what you do — and that's where I'd like to see it," he says.

"If everyone plays, the future could be anything." 🎯

MICHAEL DREGNI is an *Experience Life* deputy editor.



GO BEHIND THE SCENES

Get a peek at our cover shoot with Ben Johns — on the pickleball courts at Life Time Rancho San Clemente — at [ELmag.com/johnsvideo](https://www.ELmag.com/johnsvideo).

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A Different Kind of Meditation

Attorney, author, and certified mindfulness practitioner Spiwe Jefferson discusses her journey toward a higher purpose and introduces our new mindfulness series.

BY MOLLY TYNJALA



Stress is unavoidable — we all experience it. In the short term, it can be a powerful motivator, but chronic stress can harm our health. So, it's critical to develop strategies for managing stress

before it switches into overdrive.

Attorney, author, and certified mindfulness practitioner Spiwe Jefferson, CMP, JD, is here to help with that. The five-minute meditation prompts and step-by-step mindfulness guides she offers in her book, *Mindful in 5*, are designed to help busy people reframe their perspective and reduce anxiety.

For the second half of 2022, we're teaming up with Jefferson to create this Mindful in 5 series specially curated for *Experience Life* readers. We're kicking it off this month with an introduction to Jefferson and her work.

Q&A

WITH SPIWE JEFFERSON

EXPERIENCE LIFE | What led you to write *Mindful in 5*?

SPIWE JEFFERSON | Around 2005, a friend introduced me to mindfulness meditation, and I took lessons for years through a nonprofit religious organization rooted in Hinduism. I loved the techniques, but much of the religious context was not applicable.

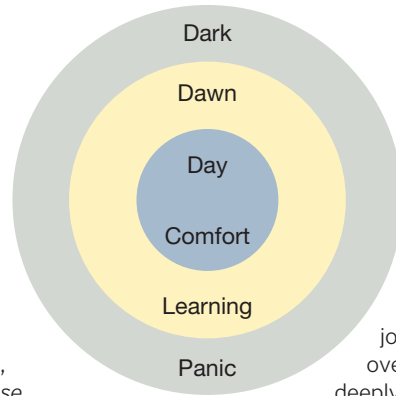
Meanwhile, life happened: I got divorced, switched jobs, relocated, lost both my parents (at different times), remarried, and began managing a blended family of five children, two dogs, and fish. Through it all, mindfulness meditation emerged as the best anchor I could have possibly had.

In addition to being a lawyer, I hold a Mindful Leader designation in mindfulness-based stress reduction (MBSR) and a certification from the Life Success Academy. In response to similar coping challenges my colleagues and friends were facing, I wrote the book I wish I'd had back then, with easy-to-implement instructions that are fun to read.

EL | How do you distinguish between mindfulness and meditation?

SJ | Meditation typically involves interiorizing your attention to increase awareness of inner





The “seasons” in the book — Dark, Dawn, and Day — loosely correspond to the Learning Zone Model categories.

consciousness. Meditative techniques discipline the mind and increase clarity and emotional stability.

Although some use mindfulness as a form of meditation, it doesn’t require closed eyes or a quiet space. Its goal is to achieve focused presence in the moment without judgment, and anyone can do it anytime.

EL | What are the benefits of combining mindfulness and meditation?

SJ | Imagine going on a road trip. Initially, you chart your course, then you refer to your GPS throughout your journey. The Mindful in 5 practice similarly combines the best of meditation and mindfulness: Set your intentions for your day first thing in the morning with at least five minutes of meditation. Use mindfulness throughout the day to remain present and anchored.

However your day unfolds, retain your power to control yourself and your responses.

EL | You describe your book, *Mindful in 5*, as the *Who Moved My Cheese* of mindfulness meditation. Why is that?

SJ | Written by Spencer Johnson, MD, *Who Moved My Cheese* is a book that uses characters in an entertaining allegory about how people navigate change. It’s one of my favorite books, and it inspired me to use characters to illustrate how to harness mindfulness meditation to overcome life’s challenges.

EL | Your book is divided into three seasons: Dark, Dawn, and Day. Why? What’s the significance?

SJ | Wherever you are in the world, days follow the same progression, hence Dark, Dawn, and Day. The “seasons” are loosely based on a construct called the Learning Zone Model, which German pedagogue Tom Senninger adapted from psychologist Lev Vygotsky’s Zone of Proximal Development. The construct illustrates three zones in which human beings operate and learn.

The panic zone in Senninger’s model equates to the Dark season in the book. There, an event or life transition occurs that upturns your life: a death,

job loss, or something overwhelming. You’re deeply stressed and completely overwhelmed.

Dawn is the season of new possibilities, learning, and growth. It can be intimidating or adventurous.

Day is the comfort zone; life is good and you’re sailing along. Stay in Day too long, though, and life can become mundane. The goal is to maneuver effectively through Dark and toggle between Dawn and Day.

EL | What is your broader intention in writing this book and starting the Mindful in 5 movement?

SJ | There is so much anxiety and animosity in the world that we cannot control. But we can control our responses and how we show up every day. My intention is to transform the workplace and the world for the better, one mindful person at a time. 🌱

MOLLY TYNJALA is an *Experience Life* assistant editor.

Mindfulness Meditation: A STARTING POINT

How following **FEETS** can boost your mindfulness-meditation practice.

BY **SPIWE JEFFERSON, CMP, JD**

“**FEETS**” is an acronym I developed as an easy-to-remember meditation tool. Whether you are a novice or are fine-tuning a long-standing practice, you can use it to establish and sustain effective meditation habits and stay consistent. (It will also come in handy as we delve deeper into this practice in future issues.) “FEETS” stands for the following:

FIND: Choose a quiet spot you can use regularly.

ERGONOMIC: Sit with your spine straight and body relaxed. If you’re sitting in a chair, your thighs and feet should be parallel to the floor, with calves at 90-degree angles to your thighs. If you’re sitting on the floor, you may want to use a cushion to keep your spine erect without straining.

EYES: Close them to reduce distraction. If you need a focal point, concentrate on the area between your eyebrows.

TOPIC: Select a topic that speaks to you, and focus on it for just a few minutes. Your thoughts will wander, but your mind will calm down with consistent practice.

STILLNESS: Be still and breathe. Get used to sitting in silence.



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Food as Medicine

A woman with three autoimmune diseases discovers the healing power of food and lifestyle changes.

BY **DEMI CHURCH**

In May of 2020, my mother handed me a book that changed my life. At the time, I was 25 years old and fighting three autoimmune diseases. I'd endured radiation and steroid treatments during the previous few months, and I was suffering from awful side effects. The eye pain and mood swings were just as bad as the symptoms the drugs and radiation were supposed to improve.

After reading the book jacket of *The Autoimmune Solution* by Amy Myers, MD, though, I felt optimistic. Myers, who was diagnosed with Graves' disease, says your fork is your best weapon against a body whose immune system attacks itself.

Intrigued by her belief in food as medicine, I read the book from cover to cover, implementing Myers's suggestions as I turned the pages.

Over the next month, I began prioritizing whole foods and high-quality protein. I eliminated processed foods, dairy, and gluten. I also avoided nightshades — such as tomatoes, peppers, and eggplant — which can be problematic for people with autoimmune conditions. All of this meant I had to eat out less often and put more effort into meal prepping.

When my symptoms had improved significantly by the end of the 30-day reset outlined in Myers's book, I felt the truth of her claim. For the first time since my diagnoses, I had hope that I could approach remission and a pain-free life.



From top: Food prep is an important part of Demi Church's routine (spring 2022); after a Thanksgiving 5K in 2019.

From Bad to Worse

I first noticed something was wrong in February of 2020, as I was preparing to leave for a humanitarian internship in Israel through my alma mater, Highlands College. Shortly before my trip, my Apple watch kept telling me I had an abnormally high resting heart rate. I decided I should get that checked out before leaving for a year, since I was also experiencing hot flashes, twitchy muscles, and insomnia.

My family-practice doctor ran numerous tests that came back inconclusive, so I went to see a cardiologist. After a lot of bloodwork and monitoring, we still didn't know anything. My doctors strongly advised staying home until we figured out what was wrong with me, so I did.

I'd never experienced serious health issues before, so this was new territory. Growing up, I'd been active in sports: cross-country running, track, basketball, softball. Because I was so active, I didn't think much about what I was eating or the effects food had on my body — I never felt like I needed to. I ate what was convenient, including a lot of fast food.

As my symptoms continued in



March 2020, I bounced around to specialists until my endocrinologist eventually diagnosed Graves' disease. My thyroid-hormone levels — which control metabolism, heart rate, and body temperature — were off the chart.

My choices were to undergo surgery to remove my thyroid or radiation to destroy it. Regardless of the choice, my endocrinologist said, I would be taking medication for the rest of my life.

Radiation therapy seemed less invasive, so in April 2020 I began that

My Turnaround

treatment, which included a thyroid ablation, followed by an oral radiation regimen. Shortly after, my eyes swelled as though I were having a bad allergic reaction. I also developed proptosis: My eyes bulged out of my head, causing intense pressure, pain, redness, and dryness. These symptoms were worse than anything I'd experienced before.

The radiation had triggered what my ophthalmologist diagnosed as thyroid eye disease. I hadn't even known that was a possibility, and I felt wronged at not having been given this information before I made my decision. But just when I was feeling hopeless, my mom gave me that life-changing book.

A More Functional Approach

By June 2020, after I'd radically changed my diet, most of my symptoms had calmed down. In August, I transferred from my job as a Life Time concierge in Houston to a club in St. Louis.

Once I'd settled in, however, I started looking for a functional-medicine physician, because I had begun to experience symptoms again: sleeplessness, migraines, hot flashes, and even hair loss. After more bloodwork, my new doctor identified antibodies for Hashimoto's disease, too. Often, a person diagnosed with one autoimmune disease is more likely to develop others, in part because the immune system is already inflamed and easily triggered.

My doctor helped me build on the work I was already doing to address my diseases in a more holistic way. For me, it was beneficial to focus on the root causes of my illnesses and consider lifestyle changes along with medication.

At this point, I learned that managing autoimmune diseases also involves better sleep hygiene and reducing stress. Thinking about the months since I'd first been diagnosed, I realized I'd been feeling a lot of anxiety. There was all the testing and the treatments. And there was COVID-19: Suddenly my job included doing temperature checks, asking health-screening questions, and monitoring mask mandates.

To relieve some of this new stress, I began taking on-demand yoga classes. I also started hiking, which was something I had always wanted to do. Getting into nature was as good for me as the exercise — I could feel my anxiety dissipate with every step.

And it was like a chain reaction: By moving more and reducing my stress, I improved my sleep. All of these things helped me manage my autoimmune diseases.

Relapse and Remission

Despite these changes, bloodwork results in October 2020 showed that my thyroid levels had risen again. My endocrinologist said she'd never seen that before: Without a functioning thyroid, she explained, thyroid hormone levels don't rise beyond a normal threshold, even with medication intended to raise them. She suggested I stop taking the medication, because my body was regulating my thyroid hormones on its own. The medication was making them skyrocket.

That's when I realized that many of my setbacks had been caused not by my diseases but by the treatment. I stopped taking all medication in November 2020, and I've been in remission from Graves' and Hashimoto's ever since.

Today, the three pillars supporting my health are nutrition, activity, and supplements. Thanks to maintaining this strong foundation, I also entered remission from thyroid eye disease in May 2021.

My functional-medicine doctor believes that my dietary changes have been a critical factor in these positive results and have kept me from developing any additional autoimmune issues. I see her every so often for routine bloodwork, and I visit my ophthalmologist once a year. I've been really fortunate to see such dramatic improvement, and I don't take my health for granted.

Healthwise, I feel like I do after a hike, when I get to look out at a view and feel the reward of all my effort. I plan on beginning a 10-month certification in functional nutrition, and someday I'd like to help people with autoimmune diseases by creating personalized nutrition and lifestyle plans. Even though everyone might not see the same improvements I did, I do believe in the healing power of food and that good nutrition can help everyone over the long term. ➔



Demi's Top 3 Success Strategies

1

BE YOUR OWN HEALTH ADVOCATE.

Ask questions, seek out different perspectives, and be willing to try a variety of techniques and strategies to find what works best for your body.

2

LISTEN TO YOUR BODY.

No one knows it better than you do. What works for someone else might not work for you (and vice versa).

3

REMEMBER YOUR END GOAL.

Lifestyle changes aren't easy. Stay motivated by surrounding yourself with supportive friends and family.



TELL US YOUR STORY!

Have a transformational healthy-living tale of your own? Share it with us at ELmag.com/myturnaround.





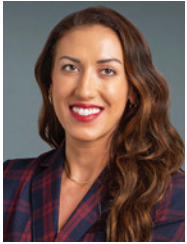
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Your Sports Health Questions, Answered

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



Julia L. Iafate, DO, sports medicine and rehabilitation physician and Sports Health expert at NYU Langone

Q: It's hot out! How can I stay safe while exercising in the heat?

A: After months of working out indoors, taking your fitness regimen outside during the summer season is an appealing option. But if you aren't conditioned to exercise in higher temperatures and don't take steps to keep cool, hot and humid workouts can be dangerous. Heat exhaustion and heat stroke send thousands of people to emergency rooms every year, with extreme heat-related illnesses — collectively known as hyperthermia — accounting for nearly 700 deaths annually.

"Hyperthermia refers to a continuum of responses to your body's inability to cool itself," explains Julia L. Iafate, DO, a sports medicine and rehabilitation physician, as well as Sports Health expert, with NYU Langone. When overheated, your body sweats to release heat to your skin and evaporate it off, Dr. Iafate explains. But in extreme conditions, your body can't release heat fast enough, resulting in a rapid rise in body temperature.

At one end of the continuum is heat rash, a stinging irritation that turns your skin red, typically followed by heat cramps, which

are painful muscle spasms. "These are the warning signs," Dr. Iafate notes.

Next comes heat exhaustion, with symptoms including fatigue, headache, nausea or vomiting, dizziness, and even fainting. "You most likely have cool and moist skin, indicating that your body is still able to cool itself but it's not happening fast enough," says Dr. Iafate. Your pulse rate may be fast and weak, your breathing rapid and shallow.

Left untreated, heat exhaustion can progress to heat stroke, characterized by a body temperature above 103 degrees F. Your skin is red, hot, and dry, meaning that you've lost the ability to get rid of heat through sweat. "Basically, your body just tries to keep the function of your vital organs going," says Dr. Iafate.



Other symptoms include a throbbing headache, dizziness, nausea, confusion, and unconsciousness. "If your body temperature gets really high, that can damage your brain and cause multiple organ system failure and even death," she says.

WHO'S AT RISK

Anyone can suffer from hyperthermia, but heat can exacerbate pre-existing conditions such as heart disease, respiratory disease, or lung disease, says Dr. Iafate.

Taking certain medications also increases your risk. Diuretics will cause you to have less fluid to sweat out. Antihistamines,

beta blockers, and laxatives can have a similar effect.

HOW TO PREVENT HEAT ILLNESS

If you train in the heat, staying hydrated is your No. 1 priority. Drink four to eight ounces of water every 15 minutes, even if you're not thirsty, advises Dr. Iafate.

Depending on how hot and long your workout is, consider an electrolyte sports drink. "We see people who drink so much water they become hyponatremic, meaning their sodium levels go too low," she says. "They pee out all the salt in their systems and don't replete it."

Dr. Iafate also recommends wearing a hat and loose, lightweight, light-colored clothing that wicks sweat from your skin. "You want to get the sweat off your body," she says.

OVERCOMING HEAT ILLNESS

"As long as you're still sweating, you're OK, but if you're getting light-headed, you're not drinking enough fluid," says Dr. Iafate.

If you have heat-exhaustion symptoms that are moving toward heat stroke, consider going to the ER. "And if somebody has heat stroke — if they're confused, slurring their speech, or unconscious, call 911," says Dr. Iafate, noting that they should get to the ER within 30 minutes.

If you're with someone with heat stroke, cool the person down quickly. Move them to the shade. Put them in an ice bath if you can, or tuck ice packs into their armpits, behind their neck, and into their groin, where lots of sweat glands are. Blow cold air at them with a fan.

"Their skin needs to absorb the cold immediately," says Dr. Iafate. "Like yesterday."

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Real Fitness



Jumping is a skill requiring power, coordination, and confidence. For beginners, bouncing on a mini trampoline is a good way to get comfortable with the movement before progressing to other types of jumps.

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Up your jump with these plyometrics tips and exercises.



THE ULTRAFIT CHALLENGE



This cutting-edge workout combines strength, cardio, and neurological training to challenge your body and brain through every stage of life.

BY **EXPERIENCE LIFE STAFF**

STRENGTH. CARDIO. BALANCE.

It's well known that training in all three of these fitness categories is essential for optimal health and well-being, especially as we age. And yet most workouts tend to fall into one, maybe two, of these areas — strength or cardio or balance — with time-strapped exercisers struggling to do it all.

But Bahram Akradi, Life Time's founder and CEO, had a vision: to integrate the three training categories in an effective, efficient, balanced way.

"How can I get a very robust, comprehensive workout that gives me all the benefits of good cardiovascular training, all the benefits of good musculoskeletal training, all the benefits of great balance and neurological training, all in 45 or 50 minutes?" Akradi says of his original idea. "Ultra Fit was created in my mind as a crossroads, a convergence of these approaches."

A small-group format that combines sprint training, functional strength training, and balance training, Ultra Fit offers the added benefit of improving hormonal profiles across gender.

Life Time founder and CEO Bahram Akradi leads Ultra Fit coaches through his signature class.



THE BEAUTY OF FUNCTIONAL TRAINING AND NEUROLOGICAL RESPONSE IS IT'S THE FASTEST ADAPTATION."





A TYPICAL ULTRA FIT WORKOUT TEMPLATE INCLUDES THE FOLLOWING ELEMENTS:

- **TREADMILL SPRINTS:** These are performed intermittently throughout the workout, between functional (strength and balance) exercises. Akradi describes the progression of sprint efforts as a crescendo, with speed increasing gradually throughout the workout as duration decreases, ending with max-effort sprints of no longer than 15 seconds.
- **RESISTANCE TRAINING:** Functional-strength movements, using tools like dumbbells and resistance bands, are performed at lower loads for higher repetitions to elicit “light muscle failure,” explains Akradi. “The body’s response is to give you stronger, firmer muscles in all of your major and minor muscle groups,” helping to protect and support vulnerable joints, such as the knees, hips, and shoulders.
- **BALANCE, COORDINATION, AND AGILITY TRAINING:** “The system that most people ignore, unfortunately, is one of the most important systems: our neurological system,” says Akradi. That’s a huge problem, he stresses, because engaging our brains through movement can help improve cognitive function in the short and long term and has been shown to mitigate the development of Alzheimer’s and other forms of dementia. Ultra Fit improves balance through unilateral training and agility training, using tools like the BOSU balance trainer and stability balls.
- **HEART-ZONE TRAINING:** For folks who track their heart rate with a monitor, Ultra Fit is designed to maintain cardio output levels across zones 2, 3, and 4.

“The objective of Ultra Fit is to pull all of this together and give you the most efficient, effective workout,” Akradi says.

These workouts can appear intimidating at first: Peek into a class and it’s not uncommon to see participants doing all-out sprints and performing single-leg dumbbell curls while standing on a BOSU ball. As the name suggests, this format is designed for high-intermediate to advanced exercisers.

Though it’s challenging, Ultra Fit is within reach for anyone who wants to give it a try and reap its rewards, says Akradi.

“There is always a progression. The beauty of functional training and neurological response is it’s the fastest adaptation. In as little as a few days or weeks, you can do things that you never thought you could. Everyone — super-athletes and beginners — should engage in functional training.”

Want to give Ultra Fit a go? Try the following sample workout, modifying as needed. Make sure to support your efforts with ample recovery, including sufficient sleep, nutrition, and stress management.

PHOTOS: KELLY LOVERUD AND COLIN SIMMONS; STYLING: PAMI BRAND; MODEL: BAHRAM AKRADI



BEFORE YOU BEGIN

Ultra Fit is designed for advanced exercisers, or intermediate exercisers with at least two months of functional-training experience. To get started, seek out a certified personal trainer or follow a functional-fitness program (like Life Time’s GTX program).

THE WORKOUT

Do this workout up to three times per week, progressing the exercises as your functional fitness improves.

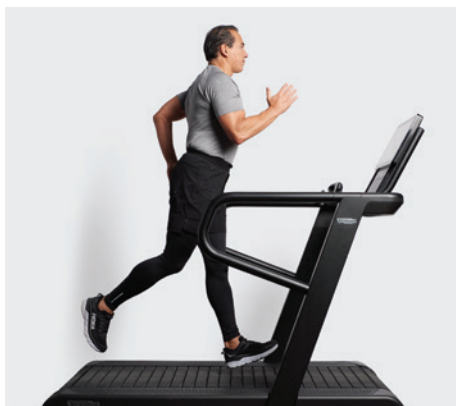
EQUIPMENT:

- A treadmill
- BOSU balance trainer
- Two stability balls
- A light or medium resistance band
- Two sets of dumbbells: light (5 to 8 pounds) and medium (10 to 15 pounds)
- A ViPR tube

ULTRAFIT EXERCISES

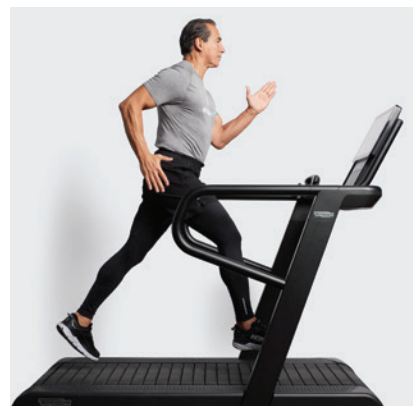
WARM-UP JOG: 5 MINUTES

Jog at an easy pace to gently warm your body up and prepare your mind for a challenging workout.



"BASE" JOG: 3 MINUTES

Aim for 60 percent effort. You're still prepping your body — this is not a sprint or even a run yet.



STABILITY BALL AB ROLL: 10 REPS

Assume an all-fours position, balancing across two stability balls. With control, push the front ball away to fully extend your body.



BOSU SQUAT HOLD WITH RESISTANCE- BAND ROW: 20 REPS

Holding a resistance band at chest level, assume a squat position on the flat side of a BOSU balance trainer.

Keeping your elbows close to your body, draw your hands in toward your ribs. Rotate your palms face-up as you row.



RUN AT 70 PERCENT EFFORT: 2 MINUTES

Push your effort to 70 percent. This won't feel easy, but it's still not a sprint.



BOSU OVERHEAD PRESS: 10 REPS/SIDE

Using your medium-weight dumbbells, perform overhead presses while balancing on one foot.



BOSU PUSHUP: 5 REPS/SIDE

Perform pushups from a single-leg plank position with your foot planted on a stability ball and your hands grasping the sides of a BOSU trainer.



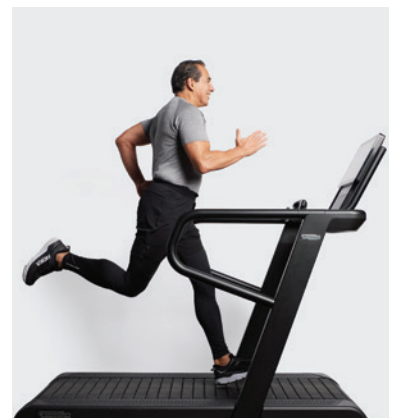
BOSU HEISMAN: 10 REPS/SIDE

Balance on your right foot, centered on the flat side of the BOSU. Bring your left knee and right elbow in to meet. Then extend your left leg and both arms.



SPRINT AT 80 PERCENT EFFORT: 45 SECONDS

Consider this the max effort you can hold with good form for 45 seconds.



EXERCISES, CONT.

BOSU BICEPS CURL: 10 REPS/SIDE

Stand on one foot, knee slightly bent, on the flat side of the BOSU. Cross the opposite ankle to rest above the standing-side knee.

Perform biceps curls while holding the figure-four position.



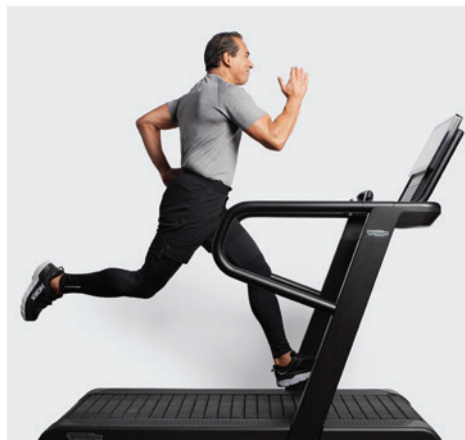
GET THE SPECIFICS

For full exercise descriptions (and modifications), visit ELmag.com/ultrafitworkout.



SPRINT AT 90 PERCENT EFFORT: 30 SECONDS

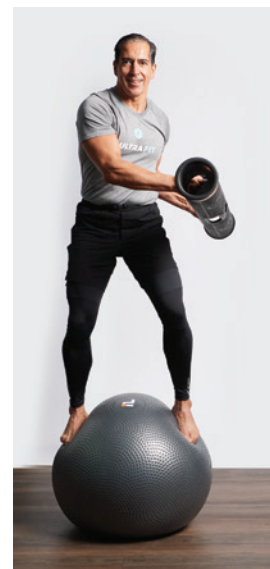
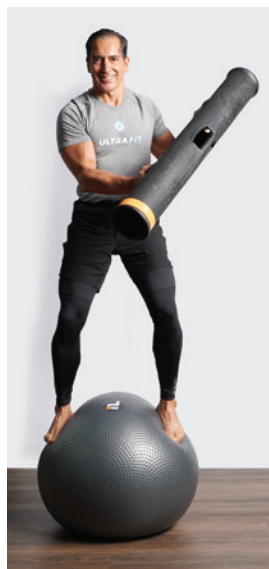
Slightly faster than 80 percent, this is the max effort you can maintain for 30 seconds.



STABILITY BALL FIGURE EIGHT WITH VIPR: 20 REPS

Balancing on a stability ball (or on the domed side of a BOSU), arc the ViPR tube side to side as if drawing figure eights with your hands.

Note: When performing this advanced move, be sure to have a spotter nearby.



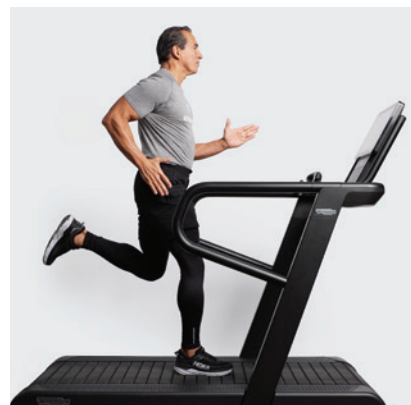
FINAL SPRINT AT 100 PERCENT EFFORT: 15 SECONDS

This is your all-out max effort. Finish the workout strong with a 15-second push.



EASY COOL- DOWN JOG OR WALK: 5 TO 10 MINUTES

Take plenty of time to cool down your body and reset your nervous system. ➕





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Jump to It

Improve your jumping skills to build speed, strength, and power to support your athletic endeavors — and everyday life.

BY LAUREN BEDOSKY

Jumping: It's a pivotal part of many sports and a helpful skill for daily life. Yet many people avoid it in their training.

"Jumping is a basic human movement," says Life Time personal trainer Sammy Jo Evans, an elite-level triple jumper.

Jump training — also known as plyometrics — can increase your strength without weights, and it improves reactivity time. It also helps train your central nervous system, Evans explains.

"The gluteus medius is your powerhouse muscle that generates explosive power: Jumping will train it to fire faster," she says. "Plyometrics also helps develop hip, quad, calf, and foot muscles — that's half your body!"

"And if you're performing jumps correctly, you have to engage your core, incorporate your arms, and work on balance. It's really a total body workout."

By training your jump, you can spark athletic

improvements in any number of sports, including basketball, Ultimate Frisbee, and Olympic weightlifting. And you can enhance your capacity to handle high-impact activities and ward off sports-related injuries.

Finally, jump training can also improve your resilience in the face of unexpected everyday motions like an abrupt change of direction or a fall.

"Practically anyone can benefit from jumping exercises," says Mike Young, PhD, director of performance at Athletic Lab sports performance training center in Morrisville, N.C.

Young compares vertical-jump training to running. Lower-intensity exercises, like jumping rope, build cardiovascular and muscular endurance in the same way as an easy jog. Meanwhile, higher-intensity movements, like box jumps, develop power, speed, and tendon durability in a way similar to sprinting.



Improving your jump is straightforward. Most people will see results from incorporating one or two jump exercises into their resistance workouts once or twice per week. “It doesn’t take much plyometric work to see the benefits,” he says.

Our experts offer guidance to help you jump better — and reach new heights in your athletic performance.

Getting Started

“Jumping is the most powerful thing the human body can do without the help of equipment,” says sports-performance coach and vertical-jump expert Tyler Ray, co-owner of Project Pure Athlete in Windsor, Ont. Yet many people dread jumping exercises, despite their benefits.

One reason is that they’re hard: They require physical precision and mental focus, and they tax the musculoskeletal and cardiovascular systems.

And jumping can be scary. This is particularly true when the jumps involve a high vertical change (like box jumps), a challenge to

balance (think one-legged hops), or an abrupt shift in direction (such as 180-degree squat jumps).

Jump training also stresses joints and tendons, the connective tissue that connects muscle to bone. This stress isn’t all bad; the impact helps the tissue become stronger and more powerful. The key is to increase that stress gradually and appropriately.

Two key factors determine how much impact a plyometric exercise will exert on your body: how far you drop before landing and whether you’re landing on one or two feet. Landing from a greater height or landing on one foot is more stressful than landing from a shorter height or using both feet to absorb the shock.

If you’re new to jump training, lower-impact



variations can help lessen the intimidation factor and reduce your risk of injury.

Start with low heights and exercises that involve landing on both feet, advises Young. Small, two-legged, stationary hops introduce your muscles, joints, and tendons to the demands of jumping.

Other good beginner exercises include jumping rope, bouncing on a mini trampoline, forward bounds (jumping forward with two feet), and skipping.

Jumping Forward

As you gain more experience, you can add new challenges. Try single-leg exercise variations, jumping up onto or down from a higher surface, changing directions (side to side, forward to back, 180 degrees), or adding mini-hurdles and aerobic steps.

If you’re not ready for a progression, Ray suggests, try these exercises at a lower height or intensity first. Instead of attempting a full set of single-leg bounds (jumping up and forward as far as you can on one leg without pausing between reps), perform a few reps at a slower pace to see how it feels. You may even spend a few weeks working at this intensity level. If there’s no discomfort or pain, pick up your pace. 🎯

LAUREN BEDOSKY is a Minnesota-based health-and-fitness writer.

JUMPING WITH HEALTH ISSUES

People suffering from bone-and-joint injuries or conditions like arthritis, osteoporosis, or pelvic-floor weakness should approach plyometrics with extra caution. Get clearance from your physician or physical therapist before adding plyometrics to your routine. Your healthcare provider may even be able to help you come up with a jump-training plan that’s appropriate for your condition and abilities.

Once you’ve been cleared to jump, follow the same guidelines for progressing your training: Start with small movements and gradually advance to more challenging ones.

Practicing plyometric exercises in a pool is also a great option for people with bone, joint, or pelvic-floor issues, Ray says. The water reduces the impact of gravity, allowing you to reap the cardio, strength, and calorie-burning benefits of jumping with less stress on your joints. (For a low-impact pool workout, visit ELmag.com/poolworkout.)



CHECK YOUR FORM

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It's Supposed to Be Hard

Fitness is built by doing difficult things and adapting to them, so don't focus on when it'll get easy.



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

The first time I worked out with a personal trainer, I had two pressing questions: (1) How long will it take until I see results? And (2) how long will it take until this gets easier?

The trainer's responses were full of exercise jargon, and my sweat-addled brain couldn't retain the answers. But what I've learned as an athlete and a coach in the 20 years since that experience is this: (1) Seeing results almost always takes longer than I would prefer. And (2) focusing on when an exercise will get easier misses the point.

These days, I ask myself, "Is it time to make this harder?"

Let me explain. Building physical fitness is a cyclical process of doing hard things and adapting to them. Repeat a hard effort enough times and eventually it will feel less hard — "easy," even. This easiness is a signal that a new challenge is required to keep the adaptation cycle going. This can look like picking up a heavier set of dumbbells or tacking a couple of extra miles onto your bike ride. It might look like trying a new sport or training modality altogether.

To be clear, this does not mean that every workout needs to be an all-out, maximal-effort challenge that makes you stronger by almost killing you. It does not mean that easy movement and easy workouts don't have a place in your training.

Rather, it is the balance of hard and easy — of intentionally riding the spectrum of effort — that makes fitness magic.

Hard efforts incrementally break down your body, and easy efforts help

build you up stronger than before. Hard efforts challenge the mind, and easy efforts give space to bask in your growing sense of resilience.

Practicing movement patterns can improve the efficiency and efficacy of an exercise; in this way, easy movement makes harder efforts not just possible, but safer.

For me, the question "Is it time to make this harder?" opened a new avenue for progressing my training. It's not meant to predict an unknown future or place judgment on what's yet to come.

It is the balance of hard and easy — of intentionally riding the spectrum of effort — that makes fitness magic.

Rather, it's planted firmly in the here and now, looking straight at the task at hand. It has given me an opportunity to check in with myself and make an intentional decision about my next step. Any honest response to the question is actionable data.

The biggest challenge, in my experience, is finding that honest answer. For me, both working with a coach and following a prefabricated program can be great ways to manage work and rest as well as determine when it's time to up the challenge by increasing speed, weight, training volume, intensity, and so on.

I've also learned that approximations around how and when physical adaptations occur might not line up perfectly with my personal experience.

Practicing the check-in process, even when an external force is guiding me, has helped improve my intuition. The more I heeded my internal cues through trial and error, the clearer the messages became.

I've been able to tailor programs to help myself progress consistently and safely. I've had meaningful conversations with my coach about what my body needs to help me reach goals — and when to redefine them. I've succeeded in avoiding burnout and injury without sacrificing progress, even if it's sometimes slower than I might have liked.

I'll readily admit that just because this approach works for me does not mean it will work for you. Maybe keeping your eyes on some future prize gives you the motivation you need right now to put in the work. Maybe noticing things getting easier is a marker of progress for you.

But the invitation I offer is this: During your next workout, ask yourself, "Is it time to make this harder?"

It's not a time- or energy-intensive ask, and you don't even need to do anything with the answer. I'd go so far as to say the answer itself is secondary to giving yourself the chance to consider the question.

Maybe this line of inquiry won't change anything. Or maybe you'll find, as I did, that it can change everything.



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

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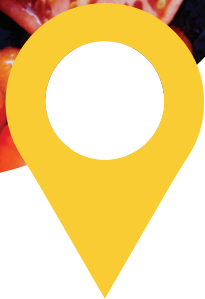
Real Food



Mix up your backyard-barbecue menu by thinking of plants first. The grill can bring out the complex flavors of vegetables — and fruit, too.

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Find our recipe for
Grilled Peaches
With Almond Cream
(pictured here) at
ELmag.com/vegangrilling.



Navigating Nightshades

For most people, these foods are a healthy and delicious part of a varied diet. But tomatoes, peppers, eggplants, and potatoes can be problematic for some.

BY **JILL PATTON, FMCHC**

Summertime! Juicy tomatoes, vibrant peppers, and shiny-skinned eggplants are piled high at the farmers' market. You're making your best potato-salad recipe and putting tomatoes in everything.

These foods all fall into the *Solanaceae*, or nightshade, family. While they are a healthy staple of many traditional diets, nightshades can pose problems for some people with inflammatory health conditions.

Specifically, eating nightshades may contribute to the inflammation, pain, and other symptoms associated with some autoimmune diseases, including rheumatoid arthritis, psoriatic

arthritis, systemic lupus, and ankylosing spondylitis, as well as psoriasis and inflammatory bowel disease.

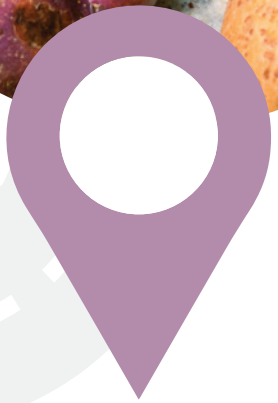
When problems appear, they may be triggered by toxins that belong to a group of nitrogen-containing compounds called alkaloids. Solanine is an alkaloid found in potatoes, eggplants, and peppers; tomatine is in tomatoes.

"For the vast majority of people, these are really terrific foods. They're enjoyed by cultures around the world," says Terry Wahls, MD, a clinical professor of medicine at the University of Iowa who specializes in autoimmunity. She notes that the alkaloid content in edible nightshades is small and well tolerated by most.

Still, she adds, people with joint-related autoimmunity might have negative reactions to compounds in these foods. These individuals may benefit from trying an elimination protocol to identify whether nightshades may be triggering their symptoms, and to give their immune systems a rest.

But there's good news: If you have one of the autoimmune or gut conditions associated with nightshade sensitivity, these foods won't necessarily cause you trouble. And if you do discover a sensitivity, you may not need to avoid them forever.

This guide offers more specifics about nightshade vegetables and fruits — their nutritional superpowers and their contradictory compounds — plus what to do next if you suspect a sensitivity.



The Alkaloid Enigma

Alkaloid compounds are found throughout the nightshade family; they're part of the plants' defense systems against insects, molds, and pests. Most of the roughly 2,500 nightshade species contain alkaloids and other compounds that are toxic to humans and other mammals if consumed in certain amounts.

Yet some nightshade alkaloids are used medicinally. The capsaicin in hot peppers, for instance, produces analgesic effects and is used in topical creams to soothe arthritic pain.

Research hasn't definitively pinned down the mechanisms by which nightshades sometimes cause problems in some people. "But what you do find in the literature is that when some people remove them, they feel better," says Susan Blum, MD, MPH, assistant clinical professor of preventive medicine at the Icahn

School of Medicine at Mount Sinai and founder and director of Blum Center for Health in Rye Brook, N.Y.

For example, in an observational study of people with psoriasis, researchers found that 52 percent of those who had reduced or stopped their nightshade consumption reported improvements in their skin. That said, the participants also eliminated other allergenic substances, such as gluten and dairy, so it's difficult to isolate which of these changes produced the positive outcomes.

Importantly, nearly all the interventions used in the study aimed to heal the gut. "It looks like the mechanism by which alkaloids cause inflammation is via the gut," Blum says.

Some research suggests that these compounds disrupt cholesterol-containing membranes in the intestinal epithelium, the single-cell layer lining the intestines.

"All the foods we eat are a mixture of compounds that are helpful to us

and things that are toxic to us," notes Wahls. If your immune system is healthy and you eat a wide variety of foods, she adds, toxic compounds, including alkaloids, don't accumulate and don't cause problems.

But people whose immune systems are already dysregulated may be susceptible to the gut-irritating effects of alkaloids, says Blum. In predisposed individuals, nightshades may trigger joint pain or swelling; migraines, fatigue, or brain fog; skin issues, such as acne or hives; or GI issues, including diarrhea, gas, bloating, and nausea.

"When it comes to a patient with rheumatoid arthritis, I'm looking at what damaged the gut — was it antibiotics? Was it diet? Was it trauma, stress?" explains Blum. "It could be a tick bite when they were 13. I don't think nightshades caused the problem, but they may be a secondary problem now."

Checking for Nightshade Sensitivity

If you suffer from autoimmune disease or persistent gut trouble, and you suspect nightshades might be an issue, begin by channeling the mindset of a detective.

If your immune system is healthy and you eat a wide variety of foods, toxic compounds including alkaloids don't accumulate and don't cause problems.



“I think nightshade sensitivity represents a hypothesis, especially if someone has an inflammatory condition. It represents a potential trigger of gut distress,” says Minneapolis functional-medicine practitioner Gregory Plotnikoff, MD, MTS, FACP. “It’s contextual, but I like the idea of an elimination diet as a way of generating or testing a hypothesis.”

Your practitioner may recommend an elimination diet that temporarily removes nightshades as well as common trigger foods, such as dairy, gluten, and eggs. Depending on the type and severity of your symptoms, however, you may be asked to consider a lengthier or more involved protocol.

For those with an autoimmune disease affecting their joints, Wahls suggests a more stringent plan that cuts out sugar, gluten, dairy, eggs, grains, legumes, and soy, as well as nightshades.

“I also am going to have the conversation to say that whatever diet we settle on, I want you to commit 100 percent for 100 days,” adds Wahls. If that’s not something patients are ready to do, she considers other ways to reduce their exposure to stressors in their environment.

The goal of most elimination diets is to remove the most troublesome irritants, allowing the immune

system to calm down and the gut to heal. After a time, offending foods are systematically reintroduced to test ongoing sensitivity.

“There are specific temporary changes to the diet that may be beneficial — emphasis on ‘temporary,’” says Wahls. “If you have a successful reintroduction of a food, then you can decide if you want to try having it twice a week and see if that works.”

If you’ve eliminated most nightshades and noticed relief from autoimmune or gut symptoms, you might find that you can reintroduce certain nightshades —

or enjoy them more often — if they are prepared in a specific way.

Pressure-cooking, for example, mitigates the effects of alkaloids and other irritating compounds, says

Wahls. So, some people who don’t tolerate, say, raw tomatoes can enjoy them in sauces. (See the next page for more ideas.)

The Value of Variety

For most people, nightshade sensitivities do not last forever, so it’s important to reintroduce the foods into your diet when you can tolerate them. Not only are they delicious, but vibrant health means eating as diverse a diet as your system allows.

The problem, cautions Plotnikoff, is that some people will see a difference for a while and swear off a food for the long term. “What clinicians see all the time is people overly restricting when they don’t need to. Then they end up fearing food, and that takes the form of suffering.”

To avoid this scenario, return to the idea of elimination diets as experiments. “To really call on one’s inner scientist, one has to repeat things, reintroduce, and do it again,” he says. “This is where I recommend a good thought partner — an informed health professional, someone who can have a little bit more objectivity and bring additional insight.”

“My end goal when working with anybody is to get their diet to be as varied and enjoyable as possible,” adds Jesse Haas, CNS, LN, a functional nutritionist at Wellness Minneapolis.

And while there’s a threshold at which some people cannot tolerate the alkaloids in these foods, she explains, their ability to provoke the immune system is likely to actually benefit most people.

“They protect the plant, and they irritate us,” says Wahls. “In small doses, for most of us, it makes our cell physiology work far more efficiently.” The notion that stressing our system makes it healthier is called hormesis.

“Hormesis is how we get stronger through strength training. It’s why saunas are good for you, why cold showers are good for you. And you can get hormesis through plants by having a diverse diet,” explains Wahls. “We’d all be a lot better if we ate a variety of foods. The greater the diversity that you have, the more you can take advantage of the hormetic stress of little toxic compounds in the foods you eat.”

“Every body is different,” notes Haas. “But for a lot of people, the same thing that gives nightshades a bad reputation is what we should be celebrating about them.” 🌱

“Every body is different. But for a lot of people, the same thing that gives nightshades a bad reputation is what we should be celebrating about them.”

JILL PATTON, FMCHC, is a certified functional-medicine health coach and health journalist based in Minneapolis.

Make the Most of Nightshades

Nightshade vegetables and fruits are nutrient-dense foods, delivering important antioxidant and anti-inflammatory benefits. Learn why these foods can be great for you — and how you can mitigate their effects if they bother you.



TOMATOES

High in an antioxidant phytochemical called lycopene, tomatoes support your skin, eyes, and cardiovascular system and have anticancer properties. They're also a bountiful source of the immune-system-supporting nutrients quercetin, lutein, and vitamins A, C, and E.

OPTIMIZE: The seeds and skins provide about 50 percent of tomatoes' vitamin C and lycopene. Unless you're dealing with specific autoimmune challenges, you can enjoy tomatoes fresh. Long-simmering tomato sauce can triple tomatoes' lycopene content, making this one food that's even more nutritious when cooked.

MITIGATE: To reduce alkaloids that may irritate a sensitive immune system, remove the seeds and skin, and pressure-cook tomatoes. (Or simply cook them down.) Many people with autoimmunity find they can tolerate tomatoes this way.

SWAP: If you're avoiding tomatoes, try using a different acidic fruit in salads, such as grapefruit. For something sweet and colorful in salsas and sauces, consider beets. You can always add a little lemon or vinegar to provide acid where needed.



PEPPERS

Sweet bell peppers, as well as spicy cayenne peppers and other chili peppers, belong to the nightshade family. (The black-pepper plant is not a nightshade.) Some of the most nutrient-dense foods available, bell peppers deliver vitamins C, K, and B6, as well as folic acid and a host of phytochemicals. Capsaicin, the same compound in chili peppers that brings the heat, is an effective pain reliever and offers cardiovascular benefits.

OPTIMIZE: Enjoy peppers raw, roasted, or sautéed. Eating bell peppers raw preserves their vitamin C, but some research suggests that cooking may increase their antioxidant benefits.

MITIGATE: To reduce alkaloid content, remove the seeds. Conventionally grown bell and hot peppers may contain concerning levels of organophosphate insecticides, according to the Environmental Working Group, so buy organic when you can.

SWAP: Try carrots, cucumbers, and celery for other colorful, crunchy snacks. It's hard to replicate the heat of spicy peppers, but you can swap in other bold ingredients, such as olives, and citrus zest.



POTATOES

French fries aside, potatoes have a lot to offer in terms of nutrition. Note that sweet potatoes and yams are not nightshades. (For more, see ELmag.com/potatoes.)

OPTIMIZE: When potatoes are cooked and allowed to cool, their starch transforms into resistant starch, a form of carbohydrate that nourishes the beneficial bacteria in your gut.

MITIGATE: Buy organic whenever you can. Conventionally grown potatoes are sprayed with fungicides and pesticides and treated with sprout inhibitors during storage. You can eliminate up to 70 percent of toxic residue, and substantially reduce alkaloid content, by peeling them. (The alkaloids are concentrated in the skin.)

On that note, avoid eating potatoes that have started to turn green; that color is caused by increasing alkaloids in the skin, which increases their bitterness and can cause stomach upset.

SWAP: It's surprisingly easy to swap in other root veggies, such as sweet potatoes, turnips, parsnips, and celeriac, as well as cauliflower, in recipes and as sides.



EGGPLANTS

Underappreciated in the United States, various eggplant varieties are staples in Asian and Mediterranean cuisines. They're a great source of fiber, and the glossy purple skin contains cancer-fighting antioxidants called anthocyanins.

OPTIMIZE: Because the deeply hued skin of purple eggplant is such a rich source of nutrients, look for varieties with thin and tender skin; some varieties have unappetizing tougher skins.

MITIGATE: Alkaloids in eggplants are what cause the bitter flavor; look for sweeter varieties such as Chinese, Japanese, or Thai.

Fresher eggplants are often less bitter as well. Salting, while masking the bitterness of eggplants, does not remove the alkaloids. Cooking may diminish solanine's toxicity.

SWAP: For a silken texture that resembles that of eggplant, try portobello mushrooms or thick-sliced zucchini or other summer squash.

Depending on the recipe, root vegetables, such as rutabagas, turnips, and celeriac can also make good substitutes for eggplant.



Take a Bite out of Food Marketing

Healthwashing, greenwashing, and humanewashing are Big Food marketing trickery. This handy glossary of labeling terms explains what they mean — and *don't* mean.

BY MICHAEL DREGNI

Grocery shopping can be a Herculean task these days. Is my food choice healthy? Is added sugar lurking within? Is it organic? GMO? Fair trade? The only part that's easier is pushing your cart: Even though you spend more, it's bound to be lighter.

We all strain our eyes to decipher food labels — although we know we can't necessarily trust them. And it's not always the fine print: Marketing chicanery is often staring us right in the face via slogans, packaging, images, and even product names that imply a product is healthy, sustainable, or humane.

To help you decode what's what, we dug into the sneaky strategies and mixed messages on so many food packages.

This is what we found.



Healthy or Healthwashing?

Big Food has been claiming unhealthy foods are good for you for a long time. Organic junk foods — including sodas, chips, and prepared meals — may be better for you than conventional snacks, but they're still highly processed. These are just some of the terms food makers use to try to sell you on their products' "health benefits."

"GOOD FOR YOU!": The U.S. Food and Drug Administration (FDA) closely regulates direct health and medical claims, but there are many creative ways to skirt this. For instance, a manufacturer can't claim a product will "boost" the immune system, but it can say it will "support" it — a subtle distinction when you're ill and looking for quick relief.

"SUGAR-FREE": Nature — and food scientists — created myriad types of sugar. Ingredients are listed on food packages in descending order of quantity, and one trick is to flavor foods with multiple sweeteners so "sugar" doesn't appear high on the list. If a product claims to contain no high-fructose corn syrup, it could still be chock-full of other sugars — and may actually be sweeter. The FDA requires "sugar-free" products to con-

tain less than 0.5 grams of sugars per serving, but they may still contain carbohydrates from other sources.

"Low-calorie" sodas and desserts may include sugar alcohols (such as sorbitol, mannitol, xylitol, or isomalt) that can still send you on a blood-sugar roller coaster, or artificial sweeteners (such as aspartame, saccharin, or sucralose) that can have a rebound effect, inspiring you to eat more.

"LOW SODIUM": This FDA-regulated term certifies that each serving contains no more than 140 mg of sodium. A "reduced sodium" product must have at least 25 percent less sodium than its regular version — but that doesn't guarantee it's not still packed with salt. And beware: Foods labeled "salt free," "no sodium," or "sodium free" can still include 5 mg of sodium.

"FAT-FREE": FDA requirements for nutrient-content claims are tough to decipher. Leaving aside the quality of the fat, a "fat-free" designation doesn't mean that a product actually has zero fat, just that it has a smaller amount: 500 mg per serving. "Low fat" means a product has no more than 3 grams per serving; "reduced fat" means a food has at least 25 percent less fat than its regular counterpart.

Similar regulations govern advertising of lower

saturated-fat, cholesterol, and calorie content, as well as terms like "lean." But remember: If a product boasts reduced fat, it usually has other ingredients making up for the loss in flavor, such as salt or sugar.

"GLUTEN-FREE": In 2013, the FDA published rules defining this term to mean the product "does not contain an ingredient that is a gluten-containing grain." But just because a product doesn't contain gluten doesn't mean it's healthy: One of the most popular gluten-free flours — rice flour — is highly glycemic and not particularly nutritious, especially when compared with nut and seed flours. "Gluten-free" food can also be loaded with sugar, salt, or fat to make up for its lack of flavor or texture.

"SUPERFOOD": This is a *super* marketing term often bestowed on a product by growers' councils (based on studies funded by the council) or trendy health gurus. The FDA does not regulate the designation, but as of 2007 the European Union banned making such claims unless there's credible scientific proof — and so far, most "superfoods" aren't passing the test.

"MOM-APPROVED": This phrase may be the ultimate in healthwashing. But sorry to say, there is no official FDA mom to sanctify it.



Green or Greenwashing?

Big Food works hard to give products a green halo, whether deserved or not. Tropes like “natural,” “whole,” “farm fresh,” and “eco-friendly” are feel-good phrases implying that a product is good for you and the earth. Images of sunrises, countrysides, or woodgrain on packaging bolster this in our minds; we even perceive food as healthier when the calorie count is printed on a green label rather than a red one, according to a Cornell University study. The FDA doesn’t regulate most of the green sheen. These are some common terms and notes on which ones are meaningful.

“NATURAL”: Sounds ideal, but this ubiquitous cliché means nothing at all. The FDA doesn’t define or regulate its use, so many foods — even those with artificial dyes, chemical preservatives, and genetically modified organisms (GMOs) — may be labeled “natural.” As New York University public-health professor Marion Nestle, PhD, MPH, writes in *What to Eat*, “‘Natural’ is on the honor system.”

“FARM-RAISED”: The FDA’s definition of “farm” is primarily for tax and compliance purposes and is as wide as the amber waves of grain. So, in marketing, this term is merely a pleasing platitude.

“FRESH”: This seemingly clear-cut word means many things. The FDA requires that “fresh” foods be raw; never have been heated or frozen; and contain no preservatives. But they can still receive postharvest pesticides; be washed in mild chlorine or acids; receive ionizing radiation; and be covered in approved waxes or coatings.

“ORGANIC”: This term was once open to interpretation, but the strict National Organic Program certification process has been governed by the U.S. Department of Agriculture (USDA) since 2001. For a product to win a USDA Organic label, at least 95 percent of its ingredients must have been grown or processed without most synthetic fertilizers or pesticides, among other standards. The Made With Organic Ingredients label means that a minimum of 70 percent of ingredients — but not *all* — meet the standard.

Note that many organic foods are imported from countries where pollution is not as regulated and so can contain heavy metals and other toxins. Also, USDA organic certification is time-consuming and expensive; some small farms may produce organic foods but not be able to afford the certification process.

And “organic” doesn’t necessarily mean healthy: Organic cookies, chips, and more can still be

loaded with sugar, salt, and unhealthy fats. It also doesn’t mean a product was humanely produced.

“BIODYNAMIC”: Philosopher and social reformer Rudolf Steiner, PhD, outlined tenets of biodynamic agriculture in 1924, establishing the first rules for an organic farming system. Since 1928, Biodynamic Federation Demeter International has certified biodynamic farms and products, including wines. These items meet USDA Organic requirements plus stricter rules for biodiversity, sustainability, water conservation, and disease, pest, and weed control.

“GREEN SEAL”: Founded in 1989, the global nonprofit Green Seal was a pioneer in certifying products that meet health, environmental, and sustainable standards. Beware: Some Big Food companies greenscam by creating their own faux ecolabels to mimic certified labels.

“NON-GMO”: Labeling food that is bioengineered (BE) and derived from GMOs used to be voluntary. In 2018, the USDA established the National Bioengineered Food Disclosure Standard, requiring BE labels or QR codes beginning in 2022.

Under the new rules, the USDA defines BE food as products “that contain detectable genetic material that has been modified through in vitro recombinant deoxyribonucleic

acid (rDNA) techniques and for which the modification could not otherwise be obtained through conventional breeding or found in nature.” Critics complain the standard has many loopholes. Also, “non-GMO” does not mean a product is organic or healthy. (For more on bioengineered standards, visit ELmag.com/bioengineered.)

“FAIR TRADE”: The global fair-trade movement aims to ensure that growers get fair payment for their products; to encourage environmental stewardship; and to help consumers make conscious choices to support these producers. The most trusted label is the Fairtrade Mark.



Humane or Humanewashing?

Most meat, dairy, eggs, and fish in the United States come from concentrated animal feeding operations (CAFOs). As this factory-farming method expands, Big Food research has discovered growing consumer opposition. Enter humanewashing, the practice of using misleading marketing to claim that animals are humanely treated — whether they are or not. These are some of the latest terms and labels.

“CRUELTY-FREE”: Neither the FDA nor USDA oversees the use of this term in advertising, so other groups have stepped in. The agricultural organization A Greener World, which also certifies organic, grassfed, and non-GMO products, awards the Animal Welfare Approved label to independent farms where animals are raised outdoors on pasture or range for their entire lives and are slaughtered humanely. These farms must also practice sustainable growing techniques.

The Humane Farm Animal Care group labels products Certified Humane Raised & Handled to indicate the animals have been humanely raised from birth through slaughter. The Global Animal Partnership, launched by Whole Foods in 2008, certifies animal welfare, including emotional well-being, and requires that animals be stunned before slaughter.

Halal and kosher certifications require “quick and swift slaughter” but do not guarantee animals are humanely raised.

“FREE-RANGE”: There’s no USDA definition governing the amount of playtime a chicken gets to root freely around a barnyard, so buyer, beware: Terms like “free-range,” “pasture-raised,” and “farm-raised” may be just marketing speak.

And while free-range chickens are not necessarily organic, an organic chicken must be free range, notes the National Chicken Council.

“GRASSFED”: There’s evidence that animals fed grass and forage — rather than grain — are healthier, which results in more nutritious and better-tasting products as well as more sustainable farming and ranching practices, according to the American Grassfed Association (AGA).

The USDA began certifying grassfed products in 2006 but revoked the label in 2016. Today, the AGA certification, which debuted in 2009, is the most recognized standard and requires that animals were fed a lifetime diet of 100 percent forage, were raised on pasture, and were never treated with hormones or antibiotics.

“Grass-finished” cattle are fed grass or forage in the final weeks before slaughter, as opposed to those finished on corn mixed with growth hormones and prophylactic antibiotics to bulk them up and prevent diseases.

“NO ANTIBIOTICS”: To prevent animals from contracting diseases in overcrowded feedlots, they’re given antibiotics. But antibiotic overuse may encourage the growth of drug-resistant superbugs.

The USDA Process

Verified label guarantees that no antibiotics were used in producing certified meats and eggs. Sound-alike labels are not USDA approved.

“WILD-CAUGHT”: There is currently no government-certified labeling for wild-caught fish. Several organizations issue labels certifying sustainably caught or raised seafood: the Marine Stewardship Council, the Aquaculture Stewardship Council, the Global Seafood Alliance, and the Wild American Shrimp group.

There is also rampant slavery in the fishing industry but no labeling to tell consumers whether what they’re buying supports fair labor standards. (For help making seafood choices, see ELmag.com/sustainableseafood.)

“DOLPHIN SAFE”: Following a consumer boycott in the late 1980s, the United States created dolphin-safe standards for tuna fishing that are followed by most U.S. fisheries and backed up by can labeling. Tuna-fishing methods can still produce bycatch, and “dolphin safe” does not mean other marine animals aren’t harmed. 🌐



Enter humanewashing, the practice of using misleading marketing to claim that animals are humanely treated — whether they are or not.



MICHAEL DREGNI is an *Experience Life* deputy editor.



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Plants on the Grill

Backyard barbecues are for more than burgers and brats. Celebrate fresh summer produce with these vegetarian recipes.

BY **ROBIN ASBELL**

The grill is perfect for cooking meat, but the kiss of fire makes magic with plants, too. A little char and smoky aroma can infuse your favorite vegetables with more depth and complexity.

Your grill, whether charcoal or gas, is a versatile tool. With low heat and a closed lid, it can serve as an outdoor oven. This method is ideal for larger pieces of food that need to cook more slowly, like big cuts of meat or whole potatoes.

With these plant-based recipes, you'll grill over medium to high heat with the lid open, and the grate will sear the bottom of the veggies. This method speeds up the Maillard reaction, which will result in browned food, caramelization, and complex flavors that are hard to achieve using other cooking methods. In fact, cooking on the grill is one way to build umami, the "fifth taste," which gives a dish a satisfying, meaty quality.

So, start grilling plants! They just might become your new favorite ingredient for a summer cookout.



This dish is inspired by Korean barbecue, a popular form of tabletop charcoal grilling. Here, tempeh stands in for the more traditional beef, with the same tangy, spicy flavors you'll find in lots of Korean food.

Korean-Style Tempeh Lettuce Wraps

Makes four servings
Prep time: 10 minutes (plus four hours to marinate)
Cook time: 10 minutes

- 16 oz. organic tempeh
- 1 tbs. minced fresh ginger
- 2 large garlic cloves, minced
- 1 tbs. Sucanat or brown sugar
- ½ tsp. freshly ground black pepper
- ½ tsp. cayenne pepper
- ¼ cup lemon juice
- ¼ cup soy sauce
- 2 tbs. sesame oil
- 2 tbs. avocado oil for the grill
- 1 small head butter lettuce
- ½ cup packed kimchi, drained and chopped

Set up a steamer over simmering water. Cut the tempeh into 1-inch cubes, then steam the cubes for five minutes. Place on a kitchen towel, pat dry, and let cool.

In a storage container large enough to hold the tempeh, place the ginger, garlic, sweetener, black pepper, cayenne, lemon juice, soy sauce, and sesame oil, then whisk to mix. Place the tempeh in the marinade and turn to coat. Cover and refrigerate for at least four hours, or up to three days.

Preheat the grill to medium. Thread the tempeh onto skewers. When the grill is hot, oil the grate and grill the tempeh until marked on all sides, turning every two to three minutes. Transfer the hot skewers to a platter.

Serve the tempeh in lettuce leaves and top with kimchi.



Avocado-Stuffed Portobellos

Makes four servings

Prep time: 10 minutes (plus one hour to marinate)

Cook time: 15 minutes

- 1 cup pinot noir (or other dry red wine)
- 1 sprig fresh thyme
- 2 tbs. extra-virgin olive oil
- 1 tbs. honey or maple syrup
- ½ tsp. sea salt, plus more to taste
- 4 medium portobello mushrooms, stems removed
- 1 large avocado
- 1 clove garlic, minced
- 2 tsp. lemon juice
- Freshly ground black pepper, to taste
- 2 tbs. avocado oil for the grill
- ½ cup chopped tomato

Place the wine and thyme in a small pot and bring to a boil over high heat. Boil until the liquid is reduced to ¼ cup, about four minutes. Remove from the heat and whisk in the olive oil, sweetener, and salt.

Use a spoon to carefully scrape the gills from the mushroom caps, taking care to support the rims with your fingers. Place the mushroom caps in a storage container and pour the wine mixture over them. Gently turn to coat, then cover and refrigerate for at least one hour, or overnight.

Preheat the grill to medium-high. Mash the avocado in a medium bowl, then stir in the garlic and lemon juice. Season with salt and pepper to taste.

When the grill is hot, oil the grate. Place the mushroom caps on the grate, gill side down. Grill for about two minutes, until the mushrooms are softened. Turn the caps and grill for two to three more minutes.

Transfer the mushrooms to a plate, then divide the avocado mixture among them, and spread to fill the caps. Sprinkle with chopped tomato and serve.

You can leave the gills in the mushrooms if you like, but they tend to be gritty and can discolor the dish. Removing them also makes space for more filling.

Grilled Corn and Quinoa Salad

Makes four servings

Prep time: 15 minutes

Cook time: 30 minutes

- 1½ cups water
- 1 cup dry quinoa, rinsed and drained
- 4 ears sweet corn
- 5 tbs. avocado oil, divided
- 1 tsp. sea salt, plus more to taste
- ½ tsp. freshly ground black pepper, plus more to taste
- ¼ cup lime juice
- 2 large jalapeños, seeded and minced
- 1 clove garlic, minced
- 2 large tomatoes, chopped
- ¼ cup toasted pine nuts or pepitas

Bring the water to a boil in a small pot. Add the quinoa and return to a boil, then reduce heat to low and cover. Cook for 15 minutes, until the water is absorbed and the grain is tender. Let cool while you prepare the corn.

Preheat the grill to high. Shuck the corn, brush off the silk, and place the ears in a large bowl. Brush the corn with 1 tablespoon of the avocado oil, and sprinkle with 1 teaspoon of salt and ½ teaspoon of pepper.

When the grill is hot, oil the grate with 2 tablespoons of avocado oil. Grill the corn, turning with tongs every couple of minutes, until the corn is tender and browned in spots on all sides, about 10 minutes total. Transfer back to the bowl and allow to cool.

Use a knife to cut the kernels off the ears and into the bowl. Add the quinoa and stir to combine.

In a small bowl, whisk the remaining 2 tablespoons of avocado oil with the lime juice, then stir in the jalapeños and garlic. Pour over the corn and quinoa mixture.

Add the tomato and pine nuts and stir to mix. Add more salt and pepper to taste, then serve immediately or cover and refrigerate for up to three days.

Inspired by the Indigenous foods of South America, this medley of nutty quinoa and caramelized grilled corn makes a great main course for plant-based diners or a satisfying side for omnivores.



Romaine becomes heartier and earthier in just a few minutes on the grill. Serve each diner one romaine half on a plate, with a steak knife for carving.

Charred Romaine With Lemony Goddess Dressing

Makes four servings
Prep time: 10 minutes
Cook time: 15 minutes

- 1 clove garlic, chopped
- ½ cup packed fresh parsley
- 1 tsp. dried tarragon
- 2 tbs. lemon juice
- 5 tbs. extra-virgin olive oil, divided
- ¼ tsp. freshly ground black pepper
- ½ tsp. sea salt, plus one pinch, divided
- 2 romaine hearts
- 1 cup grape tomatoes, halved
- ¼ cup pitted kalamata olives, halved

In a food-processor bowl, place the garlic, parsley, and tarragon and process until finely minced. With the machine running, gradually drizzle in the lemon juice and then 3 tablespoons of the olive oil. Add the pepper and ½ teaspoon of salt and process until mixed. Pour the dressing into a small bowl.

Preheat the grill to medium-high. Trim the base of each romaine heart, leaving the stem intact. Slice each romaine heart in half lengthwise. Place the four halves on a plate, cut side up, and brush with 1 tablespoon of olive oil. Sprinkle with a pinch of salt.

When the grill is hot, oil the grate with the remaining olive oil. Place the romaine on the grill, cut side down. Grill for two to three minutes, pressing down lightly with tongs occasionally, until the romaine is marked and softened. Turn the romaine with your tongs and cook for about two minutes longer.

Transfer to a plate and top with the tomato halves and olives. Drizzle with dressing and serve. 🍴



GET GRILLING!

Find our recipes for Grilled Peaches With Almond Cream and Watermelon and Cucumber Salad, along with a grilling guide, at ELmag.com/vegangrilling.



Changing Lives

For these eight individuals, choosing Life Time made all the difference.

BY **JILL PATTON** AND **CRAIG COX**



To celebrate 30 years since Life Time first opened its doors in July 1992, we're sharing stories from just a few of the people who have made the very most of their memberships. A woman who began strength training so she could lift her disabled daughter, a former wrestler who got in shape and found his way back to the sport in his 60s, and more incredible individuals — all demonstrating how choosing to embrace physical fitness can change us from the inside out.



RYAN JURGENSON
REBUILDING
RESILIENCE

Life Time River North at One Chicago

Her family calls her Ryan 2.0. She calls herself Resilient Ry.

As a teenager, Ryan Jurgenson loved swimming and working out with her mom at the Life Time near their home. But the stress of a bad relationship as a young adult led to rapid weight gain — 80 pounds in about six months — and a lost sense of herself.

Ryan avoided family and friends; she didn't want to be seen. She stopped caring about her appearance and tending to some of her own needs. "I would get my kids bundled up when it was cold, and I wouldn't even have a hat on," she recalls. "My mom would say to me, 'If you get sick, what's going to happen to them?'"

Then a beloved aunt was diagnosed with stage IV breast cancer. Facing her aunt's mortality awakened something in Ryan. "I realized that I was missing out on so many great moments in my life — as a family member and as a mom," she says.

Drawing on her positive memories of working out at Life Time, Ryan joined the Orland Park club near Chicago. With a good friend along for moral

support and accountability, she began a fitness journey focused on strength and resilience — including a four-month quest to nail a 30-inch box jump.

The box-jump goal was actually based on her misunderstanding of a personal trainer's instructions. He had proposed jumping up from a seated position on a plyo box, not jumping onto the box from the ground.

Ryan's friend captured attempt after attempt on video for Ryan's Instagram page as she built the strength and power to finally achieve her goal.

"I'm not a quitter," she says.

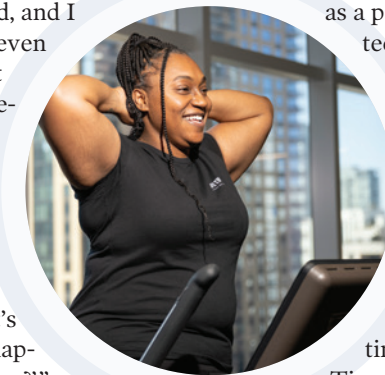
Though Ryan has always wanted to help others — she attended nursing school and has worked as a patient-care tech at a local hospital — her self-care journey inspired a career change.

She now works full-time for Life Time at the River North location while she studies to become a personal trainer.

Her three daughters inspire her ongoing pursuit of health, as well.

"As a mom, I would be over the moon if I'm able to teach my girls that they have the right to live and be themselves on their terms," she says. "I want them to be confident and happy with themselves and to take up their space in the world."

—JILL PATTON



ALI SOROUR
TURNING LOSS
INTO STRENGTH

Life Time Plymouth (Minnesota)

Ali Sorour holds on to his memories, but he lives his life looking forward.

Ali first came to the United States from Iran in the early 1970s to study engineering. He met his wife, Minoo, playing volleyball, and for more than 40 years they enjoyed an active life together. In 2016, Minoo was diagnosed with leukemia, and their world changed.

Ali cared for Minoo until she passed away in late 2017, and it was her doctor who suggested Ali seek professional support for his grief. Through counseling, he learned to retain his cherished memories without becoming overwhelmed by the accompanying emotions.

"I cannot detach memories from my life," he says. "But I can remove the intense emotion from my memories. Now I can see the light at the end of the tunnel."

While undergoing grief counseling, Ali began volunteering at the cancer clinic where Minoo had received care. And he returned to Life Time, where he and Minoo had been members for many years.

His approach to fitness has changed. From ages 8 to 72, Ali played soccer. But the COVID-19 pandemic and knee problems sidelined him, and in 2021 he underwent two knee-



replacement surgeries. A friend recommended pickleball as a game he could play as he recovered.

Ali now plays pickleball at Life Time three or four times a week and hopes to test his new knees on the tennis courts this summer. "But pickleball is going to be my main sport," he says. "When you get older, your body talks to you. My body is telling me, 'Hey, pickleball is the game for you!'"

Staying active has helped Ali cope with his loss. And though he once had a competitive side, he hung up that mentality with his soccer cleats. "I don't want to be competitive anymore. I just want to be involved," he explains. "I have met a lot of good friends since I started playing pickleball."

In fact, the person who introduced him to pickleball has become his new companion.

"I go to the cemetery every Friday," Ali says. "She comes with me. She lost a love, too, to Guillain-Barré Syndrome. We are sharing the same pain. We are helping each other. My memory is there, but she is a part of my life now and I'm happy."

—JP



DEAN BARNARD
WRESTLING ADVERSITY
Life Time Johns Creek (Georgia)

Everything fell apart for Dean Barnard in 2002. He lost his prestigious job; his marriage disintegrated. He was going broke and losing hope.

“It was the first time in my life that things had really turned south for me, and I realized that I didn’t know who I was anymore,” he recalls. “I had a plan to go into the garage, shut the door, and start the car. I was ready to say goodbye to it all.”

With the help of his two sons, Dean recommitted to what he calls his four Fs: faith, family, friends, and fitness. In the process, he rediscovered a part of himself that he’d lost long ago — his identity as a wrestler.

“Of all my successes over the years, wrestling was the one I was most proud of,” he admits. “I was a state champion in high school and was recruited to wrestle at the University of Iowa, one of the best programs in the country.”

But the 66-year-old was battling arthritis in his right foot and had spent 45 years away from the mat. “For most people, a return to wrestling would have been unthinkable,” he says. “But I’m not one to take no for an answer.”

So, when John Hanrahan, a former Penn State wrestler Dean met at an Atlanta-area Life Time in 2015, told him about a Masters Wrestling league, he was more than ready to make the leap.

He started working out twice a day and practicing his wrestling moves every Sunday.

At the United World Wrestling Championships in Walbrzych, Poland, a year later, Dean beat a former world champion and reached the semifinals before being eliminated. The experience convinced him to work even harder.

“I started attending Life Time’s group fitness classes to focus on building my strength and endurance,” he recalls. “Since then, I’ve never looked back. Now I do morning classes and sometimes another in the evening.”

By 2018, Dean had lost 25 pounds, had eased the arthritis in his foot, and was ready to compete in the 65+ bracket of the world championships in Las Vegas. Down by three points in the championship match, he put his opponent on his back in the last 12 seconds to claim the World freestyle gold medal to go along with the Greco-Roman silver medal he’d won earlier in the tournament.

Dean credits his earlier struggles with helping him find his true identity and purpose. “I know that I’m made to wrestle; I wouldn’t be the same person without this sport in my life,” he says. “While I’d never guessed I’d be here today — pursuing world championships at 70 years old, keeping my best fitness in decades — I couldn’t imagine life being any better.”

—CRAIG COX

KEN ZYLSTRA
RIDING WITH GRATITUDE
Life Time Savage (Minnesota)

In the middle of a narrow trail 11,000 feet high in the Rockies, endurance cyclist Ken Zylstra came upon a newborn antelope.

“It was just born, still wet,” says Ken, the president of his own service company (and a former Life Time executive), recalling the awe of this brief encounter last summer as he and a small team rode the 2,745-mile Tour Divide from the Canadian border to the Mexican border.

It was one of many transcendent moments on a grueling 27-day ride that crisscrossed the Continental Divide 32 times — moments that punctuated hours and days of hardship and uncertainty.

“We had the opportunity to ride through some of the most majestic and untraveled areas of the Rocky Mountains,” Ken says, reflecting on the unobscured sunrises and sunsets, ever-changing weather, unforaging terrain, and wild nature.

Ken, then 59, had completed many ultra-distance races — including the notoriously grueling Leadville Trail 100 MTB — some of which were arguably more dangerous because of their remoteness or extreme conditions. Yet the Tour Divide represented the pinnacle of his decades-long cycling career. It had long been on his bucket list, though taking a month off to ride it — let alone train for it — hadn’t seemed feasible.

Then in 2021, life circumstances offered Ken an unexpected summer off. With his family’s support, he prepped for two months, strength training at Life Time in Savage, Minn., and taking Life Time’s on-demand yoga classes at home.



The ride was unsupported — no SAG (support and gear) stops, no crews — so careful planning and constant recalculations were essential. Cafés and grocery stores weren't reliably open because of the pandemic. When trail conditions slowed the team down, they couldn't reach planned campsites and lodging. Crossing the Great Divide Basin in southwestern Wyoming meant pedaling 300 miles with no opportunities to resupply water or food.

"The Tour Divide was definitely the most difficult," Ken recalls, comparing it with other rides he's done. "Physically, mentally, emotionally — day after day."

Yet, when things felt impossible on the trail, he was able to draw on a deep well of appreciation for this unlikely opportunity (as well as his training and experience) to persevere. "Remember, guys, we *get* to do this," he'd remind his team.

"There's a simplicity on the trail that I'm so drawn to," Ken explains. "You move forward, you eat, you sleep, you drink, and you try to stay safe, and then you repeat. There's a solitude, a cleansing, that happens out there that is so pure, that just filters everything in your soul."

—JP



There's a solitude, a cleansing, that happens out there that is so pure, **that just filters everything in your soul.**

JULIE PORRAS **FINDING STRENGTH X 2**

*Life Time City Centre
Houston*



Julie Porras's daughter, Elena, was just hours old when she received her first dose of chemotherapy. Diagnosed with stage III neuroblastoma, Elena immediately began a six-round course of chemo; at five months, she endured a 10-hour surgery to remove the tumor.

Elena faced many challenges during the early years of her life. The tumor had compressed her spinal cord, paralyzing her from the waist down. Chemotherapy had damaged her developing brain, permanently impairing her cognition. Julie struggled to hold herself together.

"I was treading water," Julie recalls. She eventually reached a crisis point where she felt such despair and anxiety that she no longer wanted to live. She sought out therapy; she also began running to manage her extreme depression.

Those interventions helped, but Julie's challenges soon became physical, as well: As Elena grew, she became more difficult for Julie to pick up and carry.

A Life Time trainer suggested Julie try Olympic weightlifting. Intimidated but inspired, she learned the basics from her trainer and started attending Alpha classes at her club. "Fast-forward, Elena's now 130 pounds and she never asks if she's too heavy," Julie says. "I lift her easily."

A funny, arts-and-crafts-loving 15-year-old, Elena now enjoys work-

ing out with her mom. Her own twice-a-week training at Life Time — in group settings and one-on-one with a personal trainer — has connected her with other members and staff, who are drawn to her wry humor and optimism.

And her workouts have helped her achieve levels of physical independence Julie could never have imagined. "Just recently she got into the passenger seat of the car with no assistance, which is major," Julie reports. "She had the strength and confidence to do that because of her work here."

Julie's own physical strength — she now trains two hours a day, seven days a week — and her hard-won insights as the parent of a disabled child have given her emotional resilience and perspective.

"I think there's a grander scheme," she says. "We can reach people and teach them to love. That's what Elena does. She teaches people love and happiness and choosing to look at situations with gratitude."

Though some days are tough, and Elena's health remains compromised, mother and daughter hold on to optimism.

"Elena chose me to be her mom because I'm strong enough to be her mom," Julie says. "I'm capable enough and I appreciate the gift that she is and her purpose on Earth. She's been my biggest blessing. She's taught me so much."

—JP



LOUIE MCGEE
GOING THE DISTANCE
Life Time Highland Park (Minnesota)

The 2017 Life Time Triathlon in Minneapolis holds a special place in Louie McGee's heart. It was his experience in that athletic event that spurred the then 17-year-old, who is legally blind, to declare his intention to complete an Ironman.

Louie was a strong swimmer, but he'd never biked more than 30 miles or run more than six. So, when he floated the idea of swimming 2.4 miles, pedaling 112 miles, and running a marathon — all in a single day — his parents vetoed it. He persisted, though, and they eventually consented. He could register for the Louisville Ironman the following year, they said, but he had to handle the details and find a guide.

Milan Tomaska turned up through Facebook connections. A 10-time Ironman finisher, Milan had never even met a blind person but was willing to train Louie and guide him through the event.

They trained together for about five months. "Milan was willing to do whatever it took to help me improve and get me over the finish line," Louie recalls. "His heart was always in the right place. Knowing that motivated me to keep going."

Race day dawned cold and rainy. Louie had fought off a fever the night before and rose feeling doubtful about his prospects. To make matters worse, the person

who was supposed to drive them to the starting line never showed up, so they had to walk the two miles to get there. "I was cold and miserable," he recalls, "and my nerves were like nothing I had experienced before."

The Ohio River current was so strong that race officials were forced to shorten the swim to one mile — all downstream. Still, Louie found himself struggling to keep track of Milan. The transition to their bike took almost 10 minutes to complete.

Once they were on their way, the pouring rain and 45-degree temperature made it impossible for Louie to grasp his water bottle. "I was so happy to get off the bike that I was actually looking forward to running a marathon, which I never thought I'd say."

At the chaotic finish line, Louie landed in the arms of an "athlete catcher" and learned he and Milan had finished in 12 hours, 58 minutes, and 52 seconds. He hugged his family, who had done so much to support his efforts, before the first-place finisher approached him and handed Louie his bouquet of roses. "You showed me what this race is all about," he told him.

"My intention had been to motivate other blind kids," Louie notes, "so I was surprised I had also made an impression on the guy who won."

Louie spent much of the first half of 2022 interning at a company in London and backpacking across greater Europe, but no matter where he ends up, he says, he will always remember that Life Time Triathlon in Minneapolis "as the race that got me started."

—CC

PHYLLIS JONES
TAKING THE CHALLENGE
Life Time Novi (Michigan)

A brain aneurysm changed Phyllis Jones's life — in a good way.

Struck down in 2011, Phyllis spent a month in the hospital and reemerged determined to return to the healthy lifestyle she and her husband had once enjoyed. She'd been a dancer and her husband had played college football, but the pressures of their stressful jobs had pushed physical activity beyond their reach in the years prior to her illness. She'd put on some weight and suddenly felt compelled to do something about it.

"We both loved being active, but between our jobs and shifting schedules, that lifestyle fell by the wayside over the years," she admits. "I wanted to get it back."

Following her hospital stay, months of physical therapy at her Michigan home helped Phyllis gradually regain her strength and coordination. Eventually, she was able to participate in water-fitness classes and Pilates sessions at the nearby Life Time club in Novi.

Two years after suffering the aneurysm, she felt she was still carrying too much weight, so she signed up for what was then known as Life Time's 90-Day Challenge (now the 60day Challenge).

Phyllis had participated in group fitness classes before but found it too easy to make excuses for skipping a session. The Challenge was different. "I was surrounded by people who wanted to change their lives for the better, too," she notes. "We were in it together, so it was easy to stay accountable."

The trainer emphasized setting goals both for the duration of the Challenge and for the



long term, and a nutritionist took the group to a grocery store to help them restock their pantries with healthier choices. Phyllis soon found herself feeling “more comfortable in my skin.”

She’d lost some weight by the end of the 90 days but knew there was more work to be done. Many of the people she’d met had signed up for the next Challenge, so she joined them. Today, she has completed the Challenge a dozen times.

And although she has managed to shed 70 pounds since she began tackling the Challenges, Phyllis now looks beyond the scale when recalling her healthy-living journey. “I’ve found the active life I was missing before my aneurysm — and the focus and the supportive community to help me keep going.”

Her Life Time friends have continued to support her health throughout the pandemic. While the clubs were closed, they would challenge each other to post their daily fitness accomplishments on social media. “So now in 2022,” she says, “I have not gained any pounds back. I use all the platforms I am blessed to have access to . . . including back in person at my happy place!”

—CC



I was surrounded by people who wanted to change their lives for the better, too. **We were in it together, so it was easy to stay accountable.**



JESSICA TOBIN
MOVING FOR MENTAL WELLNESS

Life Time Austin - North (Texas)



The posture and breath work were a huge stress relief, and **I always left class feeling calm and focused.**

For three years after the birth of her second child in 2006, Jessica Tobin struggled to return to her formerly active life. Feeling overweight and overwhelmed, she began working out every night at a Life Time club near her Austin, Texas, home. Those evening workouts, she recalls, “were the only reason I was able to get through the first few years of my children’s lives without going insane.”

Jessica lost the baby weight and began to feel better about herself, but she soon was faced with a more complicated health issue. After months of fruitless exams, faulty diagnoses, and needless surgical procedures, she learned that the debilitating cramps she’d been experiencing were caused by pelvic-floor dysfunction — a common condition among postpartum women.

A few months of weekly physical-therapy sessions brought relief, and Jessica continued working with her therapist for another year while also practicing visualization techniques, massage, and breathing exercises. At the same time, she was studying for her personal-training certificate from the American College of Sports Medicine. “Dealing with stress in a positive way allowed my body to relax so my therapy could yield maximum results,” she

explains. “I learned how powerfully my mind could affect my physical self.” By 2012 she was able to return to her normal workout regimen.

In March of that year, she and her family relocated to Rochester, N.Y., where she no longer had access to a Life Time club. But thanks to the foundations she’d developed in Austin, she eventually discovered and fell in love with Pilates. The exercises stretched and strengthened her entire body, and she could apply all she’d learned in physical therapy about muscle release and engagement.

“And the mental benefits were just as valuable,” she adds. “The posture and breath work were a huge stress relief, and I always left class feeling calm and focused.”

Two years later, Jessica gained accreditation as a certified Pilates instructor, which gave her the opportunity to help other women address pelvic-floor issues.

“I love being able to pass along lessons from my own rehabilitation journey and to help my students realize the value of integrative fitness — including rest and recovery.”

—CC

JILL PATTON is a Minneapolis-based health journalist. **CRAIG COX** is an *Experience Life* deputy editor.



ILLUSTRATIONS: PAUL HOSTETLER



EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT SWEAT (AND SOME THINGS YOU DIDN'T!)

BY MARGRET ALDRICH

If you added up Christopher Bergland's athletic achievements, they would amount to the equivalent of running around the world four times, biking to the moon and back, and swimming across the Atlantic Ocean and home again.

The tenacious endurance athlete once set a Guinness World Record for running — 153.76 miles on a treadmill in a single day — and is a three-time Triple Ironman champion, completing the überdemanding 7.2-mile swim, 336-mile bike ride, and 78.6-mile run in a record-breaking time of 38 hours and 46 minutes his first year.

Bergland knows a thing or two about sweat.

“When I finished the Triple Ironman, I felt like I'd sweated out every last electrolyte,” he says. Fortunately,

Bergland, author of *The Athlete's Way: Sweat and the Biology of Bliss*, takes inspiration from perspiration.

“I love to sweat,” he says. “In my mind, sweat equals bliss.”

Sweat is a common partner to exercise, whether it's the rivulets that accompany an intense weightlifting circuit or the droplets that pitter-patter onto our yoga mats during downward dog.

But outside of working out, we rarely celebrate perspiration as a desirable byproduct. In fact, if we think of sweat at all, many of us consider it an embarrassing bodily function, a sometimes-stinky annoyance, a socially undesirable bit of physiology.

On an exciting first date, for instance, your palms may get sweaty just as that special someone reaches

for your hand. At a job interview, underarms can turn swampy after the first tough question.

Even in the context of a great workout, sweating buckets can be less than comfortable. “Breaking a sweat can create some inconvenience,” acknowledges Bergland, “but the payback is always going to be worth it.”

Why?

Because sweat serves a purpose — as a barometer of effort, as an indicator of stress, as a measure of health, and also as a literal lifesaver: If it weren't for sweat cooling our bodies down, we'd all perish much sooner.

Perspiration is a nearly universal experience. But how many of us really understand how it works, and why? Here are the fascinating essentials you need to know — the cut-and-dried facts about all things sweaty.

Why do we sweat?

Like it or not, we can't live without sweat. Perspiration keeps the body from overheating and short-circuiting. When your core temperature rises much higher than 98.6 degrees F, the hypothalamus — your brain's thermostat — signals the exocrine system's sweat glands to activate. Perspiration rises to the skin's surface through pores and evaporates when it hits the air, keeping you cool.

We often sweat during exercise, but plenty of other conditions can prompt sweating, like a hot summer day or situations that make us feel anxious, embarrassed, or angry.

What is sweat, anyway?

You've no doubt noticed that sweat can taste salty. Perspiration is mostly water, along with small amounts of fat and electrolytes — the electrically charged essential minerals (such as sodium, potassium, and calcium) that are critical to our body's function, including muscle contractions and energy production.

Sweat's makeup differs depending on which kind of sweat gland — eccrine or apocrine — produces it. Eccrine glands are found all over the body but are most concentrated on the forehead, palms of the hands, and soles of the feet. These glands produce a clear, watery fluid when you exercise or are too toasty.

Don't blame eccrine sweat for body odor, though; this type of perspiration doesn't smell. If your feet are stinky, it may be due to an overgrowth of the *Micrococcus sedentarius* bacteria, which grow when feet are enclosed in socks and shoes all day.

Apocrine glands, on the other hand, produce a milky fluid that is responsible for BO. They are found primarily in areas abundant in hair follicles — such as the underarms and genital area — and expel a thick, oily fluid containing fats and proteins.

Apocrine sweat doesn't innately smell bad, but when it interacts with the millions of bacterial organisms (such as *Staphylococci* or *Corynebacteria*) that live on the skin's surface, it produces a telltale odor.

How much do we sweat?

More than you might think: According to the National Institutes of Health, an average adult can produce up to a quart of sweat per day. Children don't start reaching those levels until puberty.



How many sweat glands do we have?

We are born with between 2 million and 4 million sweat glands, which are located all over our bodies — except a few places, like our lips and ear canals.

Why do some people sweat more than others?

Thank your parents for this one. A big factor in how much you sweat is genetics, which determines exactly how many sweat glands you have. It's also affected by other factors, including sex (see "Sweating and the Sexes" on page 63), fitness level, health status, and weight.

Heavier people tend to have higher sweat rates, both because they have to exert a lot of energy during physical activity and because there is more body mass to cool down. Surprisingly, though, the sweatiest people in the gym are often the fittest.

"People who are highly fit generally maintain a higher sweating rate, due to more muscle mass (which is heat-producing) and having a greater blood volume and circulatory system, along with a greater sweat-gland capacity and sensitivity," says Michael Bergeron, PhD, a fellow of the American College of Sports Medicine. "And, of course, the more fit you are, the longer and harder you can exercise, and thus, the more you will sweat overall."

Why does my sweat stink when I'm stressed?

Remember the *Saturday Night Live* schoolgirl character, Mary Katherine Gallagher, who would stick her fingers under her arms and then smell them whenever she got nervous? It's likely she was getting a whiff of something strong. Sweat produced when we're under emotional stress is made by the apocrine glands, which are responsible for the stinky sweat.

What exactly triggers stress sweat is still unclear, though scientists hypothesize that it's linked to the adrenaline release that accompanies a fight-or-flight situation. This serves as an evolutionary — and odorous — warning signal.

Stress may also cause a vicious circle of sweat: When you notice you're perspiring a lot, it can increase your anxiety — *What if someone notices my wet underarms?* And this in turn can make you sweat even more.

Does sweating change with age?

There's a reason babies and little kids smell sweet: Their apocrine glands aren't yet active. Once puberty hits, and the apocrine glands start functioning fully, body odor can become an issue.

Another shift happens in midlife. About 75 percent of women experience hot flashes and sheet-soaking night sweats during perimenopause and menopause. This excessive sweating is probably caused by changes in reproductive hormones and changes in the body's thermostat, says Rebecca Thurston, PhD, director of the Women's Biobehavioral Health Laboratory at the University of Pittsburgh. "The central thermostat of the body malfunctions during menopausal transition," she says.

Women can experience hot flashes or night sweats for several years. "We used to think the duration that a woman will have hot flashes and night sweats was three to five years," says Thurston. "But the newest data shows that the really frequent, severe ones maybe last seven or eight years; and low-level symptomatology is probably closer to 10 years."

Some doctors prescribe hormone therapy to ease the discomfort of night sweats, but many are working to develop nondrug approaches. Studies have shown that not smoking, maintaining a healthy weight, and using herbs like black cohosh may help. And Thurston notes that "the most effective behavioral treatment right now is hypnosis — believe it or not — with cooling suggestions."

(For more on night sweats, see ELmag.com/night sweats.)

What does the scent of sweat tell us?

Sweat may play a role in nonverbal human communication. The "sweaty T-shirt study," for example, conducted by Swiss biologist Claus Wedekind in 1995, found that women rated most pleasant the scent of men whose genes were most unlike their own, suggesting attraction to a potential mate who'd ensure a stronger immune system for their offspring. Talk about chemistry!

Sweat can also speak poorly of us. Research published in *PLOS ONE* in 2013 shows that women's stress sweat can make men perceive them as less confident, competent, and trustworthy.

And a report published in *Psychological Science* found that we can detect other people's emotions, thanks to sweat. In fact, researchers from Utrecht University in the Netherlands suspect that sweat's scent actually makes emotions contagious.

In the study, underarm sweat was collected from men as they watched scary scenes from *The Shining* and gross-out clips from the TV show *Jackass*. When women smelled the "fear sweat" samples, they opened their eyes wide and had a frightened expression. When they smelled the "disgust sweat," they grimaced.

Why do some people sweat excessively?

About 3 percent of the world's population has hyperhidrosis, which causes someone to sweat a lot — four to five times as much as the average person.

"Primary hyperhidrosis, while not life threatening, is certainly life altering," says Lisa Pieretti, executive director and cofounder of the International Hyperhidrosis Society. "The extreme embarrassment as well as actual functional impairment can be devastating. But thankfully, we see great improvement in the treatments being offered and the awareness of both the public and medical communities."

While primary hyperhidrosis appears to have a genetic component, secondary hyperhidrosis can result from an underlying condition, such as lymphoma, hyperthyroidism, or diabetes, or as a side effect of medication. Treatments include Botox injections, iontophoresis (which sends a gentle electrical current through your body to shut down sweat glands temporarily), and even surgery.

Still, some doctors suggest that hyperhidrosis can be vastly improved by testing for food sensitivities and removing any offending foods from the diet.

Should I be concerned if my sweat suddenly smells different?

It's normal for foods like garlic to temporarily alter our body odor as their chemical compounds are excreted through our pores. Yet strong BO can, infrequently, signal a health issue.

Trimethylaminuria is a rare genetic disorder that causes sweat to smell like rotting fish or eggs. Research has also linked certain body odors to kidney failure, schizophrenia, and olfactory reference syndrome, a delusional condition in which patients believe they have a bad body odor but in reality do not. These conditions are rare but should be addressed by a medical professional.



THE SCIENCE OF STINK

Several factors, in addition to your emotional state, can influence your body odor:

- People of East Asian descent are less likely to have BO than their European and African counterparts, thanks to ABCC11 gene variations thought to play a role in the excretory function of apocrine sweat glands.
- A study from Charles University in the Czech Republic found that heavy meat-eating can make your sweat smell worse. Researchers collected the underarm sweat of men on meat-eating or vegetarian diets. Sniffers rated the non-meat-eaters' sweat significantly more pleasant.
- Some people are cursed with especially stinky feet, thanks to an overgrowth of the bacteria *Micrococcus sedentarius*, which emit a sulfuric smell.
- Damp skin can encourage bacterial and fungal overgrowth, which interacts with apocrine sweat to produce odor, so be sure to thoroughly dry off after a shower or bath.
- The sweat of identical twins smells the same, according to a study published in the *Journal of the Royal Society Interface*, even when they don't eat the same foods.
- If you have yellow, sticky ear wax, you're more likely to have strong body odor. If you have white, flaky ear wax, you're less likely to smell, according to a 2009 *BMC Genetics* study.

Why do certain clothes smell worse than others after we sweat?

A study published in the journal *Applied and Environmental Microbiology* shows that polyester apparel retains stink more than cotton clothing after a hard workout, because it is less absorbent and promotes odor-causing bacteria.

"We investigated the microbial growth on both textile types, and it appeared that different microbial growth occurred," says Ghent University's Chris Callewaert, PhD, senior postdoctoral research fellow at Research Foundation Flanders and creator of the website DrArmpit.com.

"Polyester was a source for *Micrococcus* enrichment, which was not seen on cotton. *Micrococci* are known for their enzymatic capacity to degrade fatty acids and amino acids into volatile malodorous compounds. These microbes are also an important reason why polyester is stinkier after exercise."

Like natural cotton, wool can help you avoid a smelly clothes hamper. While wool will permit microbial growth, it breeds mostly nonodorous bacteria.

Workout wear is often made from synthetics like Lycra and polyester, which can wick away sweat but hold on to body odor. Specially formulated detergents can help dissolve the oils that interact with bacteria and cause the smell. Antimicrobial sportswear can also help reduce the microbial numbers, but it comes with its own risks. (For more on why anti-odor clothes stink, see ELmag.com/antiodor.)

These measures prevent the sweat that's absorbed into the treated material from becoming stinky. But be forewarned that bacteria on your skin can still transform the sweat molecules into something malodorous.

(For smart advice on getting funky odors out of gym clothes, see ELmag.com/destink.)

Is it possible to sweat too little?

Yes. Sweating too little — a condition called anhidrosis — can be life-threatening, because the lack of sweat can lead to heat exhaustion or heat stroke.

Anhidrosis occurs when your sweat glands stop working. It may be caused by nerve damage, burns, certain medications, genetics, or dehydration.

If anhidrosis affects only a small area of your body, it's typically not harmful. If you can't sweat from a large area of your body, however, it's wise to seek medical counsel.



Do certain foods make us sweat?

Just like hot weather, hot-tasting foods raise your body temperature, affecting the receptors in your skin that tell the nervous system to kick into cool-down mode and produce sweat.

In addition to five-alarm chili and kicky curries, substances like caffeine, nicotine, and certain prescription drugs can also stimulate the sweat glands. And drinking large amounts of alcohol promotes profuse sweating, too, by increasing your heart rate and dilating the blood vessels in your skin.

Extreme food-related perspiration is called gustatory sweating, or Frey's syndrome. While it is sometimes linked to conditions like diabetes and Parkinson's disease, many cases happen after trauma to a parotid gland — the largest salivary glands. When damage occurs, individuals may sweat when they are supposed to salivate.

What are the health benefits of sweating?

Aside from its temperature-regulating effect, sweating has been shown in recent studies to excrete small amounts of toxins, including arsenic, mercury, lead, and cadmium, as well as to rev up circulation and clear the pores.

Researchers have found that exercise is not the only way to reap these rewards — saunas can be a part of your sweat-inducing regimen. Infrared saunas, in particular, which heat the body without warming the surrounding air, can provide such benefits as improved circulation and pain relief. Scientists are exploring the use of this therapy in treating health issues like rheumatoid arthritis and high blood pressure.

Still, many experts contend that perspiration's key benefit is its ability to prevent overheating — not ridding our bodies of unwanted pollution — noting that sweat's detoxification powers are mild compared with that of our kidneys and liver.

Does sweating protect me from overheating?

Not necessarily. For sweat to cool us down, it needs to evaporate into the air, and humidity makes that difficult. For this reason, experts warn against overdoing it at hot-yoga studios; when exercising outdoors on a hot, humid day with little to no wind; and when sitting in a steam room. The sweating itself isn't dangerous, but humid environments can make it ineffective.

"You will still sweat — a lot!" says Bergeron. "But sweat beading up on your skin and rolling off onto the ground is not helping you to regulate temperature." 🌀

MARGRET ALDRICH is a writer based in Minneapolis.

THE LOWDOWN ON DEODORANTS

We often turn to deodorants and antiperspirants to smell fresh. There's a difference between the two: Deodorants mask scent; antiperspirants obstruct the sweat glands, stopping odor before it starts.

Although these products can be effective, there's a chance they will make you stinkier. "Deodorants and antiperspirants have a big effect on the composition and diversity of our armpit microbiome," says Ghent University researcher Chris Callewaert, PhD.

When deodorants or antiperspirants are used consistently, the armpit microbiome is stable, but when use is stopped or resumed, the axillary microbiome can change, leading to more odor-causing *Corynebacteria*.

Antiperspirants may also be detrimental to your health. Though the research is inconclusive, they have been linked to breast cancer and Parkinson's disease, and both antiperspirants and deodorants can contain nasty chemicals like parabens and hormone-disrupting fragrances.

Antiperspirants may also be to blame for yellow underarm stains, which are thought to be caused by the interaction of sweat with the aluminum used in antiperspirants.

Instead of commercial antiperspirants or deodorants, choose clothing made from cotton and other natural textiles, and try out a homemade deodorant made from cornstarch, baking soda, and coconut oil, a natural antimicrobial.

SWEATING AND THE SEXES

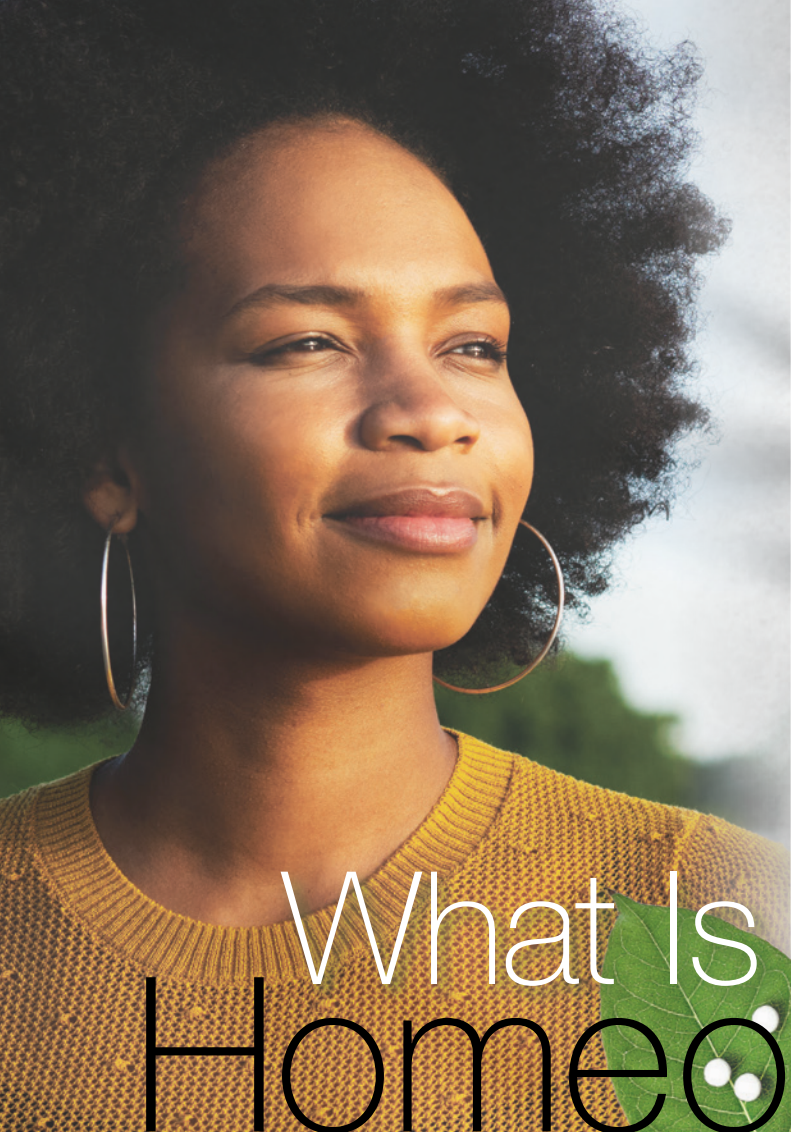
There are distinctions in how males and females perspire. "Males and females have a different armpit microbiome," says researcher Chris Callewaert, PhD. Females' armpits tend to harbor more *Staphylococci*, while males' have more *Corynebacteria*, which tend to cause more malodors. Transgender individuals may experience differences in odor and amount of sweat, depending on hormone levels.

FEMALES:

- Females don't sweat as readily as males do, requiring a higher body temperature for their sweat glands to start working, notes a study published in *Experimental Physiology*.
- Menstrual cycles can affect sweat; during ovulation, body temperature rises, increasing sweat levels, and menopause can cause profuse sweating.
- Females have greater sweat-gland density than males, but females sweat less.
- Females are more able to sniff out body odor, according to research published in the *Flavour and Fragrance Journal*.

MALES:

- Males have more apocrine sweat glands, which are responsible for BO, than females do.
- Some studies say males typically sweat more than females — by one report, they produce up to four times more sweat — while others find that sex is statistically less relevant than body morphology, weight, and fitness level.
- Male BO is harder to hide. One report says that 25 different fragrances were able to mask the smell of female sweat, while only nine worked on male sweat.



TREATING MILD AILMENTS WITH HOMEOPATHIC MEDICINE IS BECOMING MORE MAINSTREAM IN U.S. HEALTHCARE.

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What Is Homeopathy?





BY **MO PERRY**

In 2018, I developed a small rash on my abdomen. It lingered for weeks, slowly radiating outward from the original red spot. I happened to be interviewing a homeopath for an article I was writing, and at the end of our conversation I mentioned the rash. She suggested I try a homeopathic remedy — sulphur — which was available at my local food co-op for less than \$10. The day after I took it, my rash disappeared.

A lucky coincidence? Maybe. Maybe not.

Millions of people around the world rely on homeopathy to treat common minor ailments and address stubborn chronic conditions. It's an accepted medical protocol in the health systems of Brazil, Chile, India, Mexico, Pakistan, and Switzerland. In Germany, where homeopathy originated, treatments are covered by most government medical plans, and remedies are widely available in pharmacies. In a 2021 survey, 54 percent of Germans reported having used homeopathy.

By comparison, the use of homeopathy is somewhat rare in the United States. As of 2012, the most recent year for which data is available, about 6 million Americans — less than 2 percent of the population — reported having used homeopathy within the past year. Although some integrative MDs include homeopathy in their treatment strategies, the practice remains controversial among mainstream U.S. healthcare professionals, even as many of their counterparts around the globe deploy it as a routine, low-cost intervention.

So, what is homeopathy? Kathi Fry, MD, CTHHom, a physician and master homeopath in Boulder, Colo., describes it as “a form of alternative medicine that works by stimulating the body’s inherent ability to heal itself.”

Homeopathy emerged in 1796 with the work of German physician Samuel Hahnemann, who believed that the symptoms we display when sick are manifestations of the body’s healing response. It’s based on the principle of “like cures like” (or the law of similars): Homeopathic treatment involves giving sick patients remedies that, if given to a healthy person, would cause the same symptoms the patient is presenting. In the ailing person, the remedy is meant to help stimulate the body’s inherent ability to heal.

“We have an innate intelligence in our bodies,” says Fry. “In Traditional Chinese Medicine, it’s called chi. In homeopathy, it’s called the vital force.” That power can be depleted by physical, mental, and emotional causes, and that depletion manifests in physical, mental, and emotional symptoms. “Symptoms are the way the vital force communicates and asks for help.”

You can suppress these symptoms with medication, but the problem may then simply manifest in another way. “The more ways you suppress symptoms, the louder the vital force will scream,” Fry explains.

Instead of suppressing symptoms, homeopathy aims to induce the body’s self-healing mechanisms to respond in a gentle, comprehensive way.





How Homeopathy Works

Homeopathic remedies are initially identified through a “proving” process, in which they’re given to healthy volunteers. The volunteers then record their physical, mental, and emotional symptoms. A supervisor collates these responses and looks for commonalities.

“Every remedy has a particular signature, and you match it to a patient’s symptoms based on what it showed in its proving,” Fry says. “It works like a tuning fork — an energy resonance that happens with the vital force.”

Several conventional medical treatments also operate on the law of similars. Allergen immunotherapy, for instance, treats allergies by exposing the sufferer to small traces of the offending substance to desensitize the immune system to it. And many vaccines work by introducing the immune system to an inactivated or partial pathogen, giving the body a chance to prepare to fend off the real deal.

Homeopathic remedies are more subtle. Practitioners believe that they work on an energetic level instead of a biochemical one. They’re prepared by repeatedly diluting and shaking a concentrated natural substance (usually plants, minerals, or animal products) until the substance itself can often no longer be detected. A remedy has been serially diluted in liquid (usually water or alcohol) in a ratio of one part to 100 (written as “c”) or one part to 10 (written as “x”).

Counterintuitively, the higher the dilution, the more potent the remedy. “The physical characteristics of the substance lessen as the energetic or healing properties are increased,” explains Fry. These remedies are typically administered in sugar pellets under the tongue; they are also available in tablets as well as topical ointments where appropriate.

Because most homeopathic remedies contain little or no trace of the

original substance, they don’t function in the body as a molecular substance taken into a cellular receptor. They work more like an acupuncture needle than a drug or an herb.

“Homeopathy works by using energy at some level,” says Karen Lawson, MD, ABIHM, codirector of the Integrative Health and Wellbeing Coaching program at the University of Minnesota’s Earl E. Bakken Center for Spirituality and Healing.

Scientists have investigated whether substances affect the crystal structure of water in the dilution process. Others have proposed that solution dynamics or bioelectromagnetics may play a role.

But the fact is that no one knows exactly how homeopathy works. “It’s the biggest barrier to producing more research on homeopathy,” says Lawson. “The National Institutes of Health want a mechanism they can understand.”

Still, there is some research to support its effectiveness. A 2014 meta-analysis of 22 randomized controlled trials suggested that homeopathic treatment can be more effective than placebos, and “medicines prescribed in individualized homeopathy may have small, specific treatment effects.”

And an older (1997) meta-analysis that reviewed 89 clinical trials involving more than 10,000 patients found that homeopathic treatment outperformed placebos in multiple studies.

Another challenge of evaluating homeopathy with the standard biomedical research model is that, like many functional, alternative, and complementary medical practices, it’s highly personalized.

When prescribing a treatment, a homeopath will first evaluate a patient’s “constitution” — the sum total of their physical, mental, emotional, and spiritual profile. “A person’s constitution is like a jigsaw puzzle,” explains Loretta Butchorn, PhD, DIHom, a psychologist and homeopath in Provincetown, Mass. One person might be fiery,

HOMEOPATHY’S LOW COST AND LOW RISK MAKE IT AN APPEALING CHOICE FOR TREATING COMMON MINOR AILMENTS AT HOME.



energetic, and assertive, with a preference for certain kinds of foods and weather, and a tendency toward certain symptoms.

Another may be quiet and accommodating, with a whole different set of preferences and tendencies. “The homeopath looks at the whole constitution and matches that picture with a remedy that has similar characteristics,” Butehorn says.

This kind of individuation is what allows homeopathy to be so precise — for example, targeting specific issues like “motion sickness that’s improved by lying down.” “You can have 30 people with the same diagnosis, and they each need a different remedy,” says Fry. “If a kid has a cough, the remedy will differ depending on if it’s a dry or wet cough, or if it’s worse in the morning or the evening.”

This level of personalization is a hurdle to studying homeopathy in randomized controlled trials, because typically everyone in a treatment group receives the same remedy. But research models are becoming more flexible to accommodate personalized systems of care, says Lawson.

Applied clinical research assigns people to receive either standard medical care or an individualized treatment, such as acupuncture, chiropractic care, or homeopathy. “Then you can look at these systems’ efficacy in clinical practice,” she explains.

When to Use Homeopathy

Homeopathy’s low cost and low risk make it an appealing choice for treating common minor ailments at home. Of the 6 million Americans who used homeopathy in 2012, only 19 percent reported seeing a provider. The remaining 81 percent presumably self-prescribed over-the-counter remedies, according to a 2018 report. (In the United States, these formulations are not FDA-approved, but they are subject to the same marketing restrictions as other supplements.)

Reputable brands, such as Boiron, are available at health-food stores nationwide in a range of potencies (30c is most common for household use), usually for around \$10 per remedy. Each bottle or tube contains scores of pellets, and the doses are typically small — usually about four or five pellets.

Companies such as Hahnemann Labs offer kits in a range of sizes for home and travel. (For four common remedies to include in your home first-aid kit, see page 69.)

Homeopathy can ease acute mental and physical complaints, such as mild anxiety, depression, digestive issues, and respiratory infections, as well as symptoms related to chronic health concerns, including ADHD, allergies, and arthritis.

It may also be helpful when used in conjunction with conventional treatment approaches. “For something like a broken bone, you want a cast,” says Lawson. “But for persistent pain from a fracture, homeopathy can help.”

Homeopathy is not suited to address a tumor or other similarly serious or severe conditions. Yet when used in combination with conventional care, “it can help shift the underlying predilection energetically, and help with adjunct symptoms and responses to things like chemotherapy or radiation,” Lawson says.

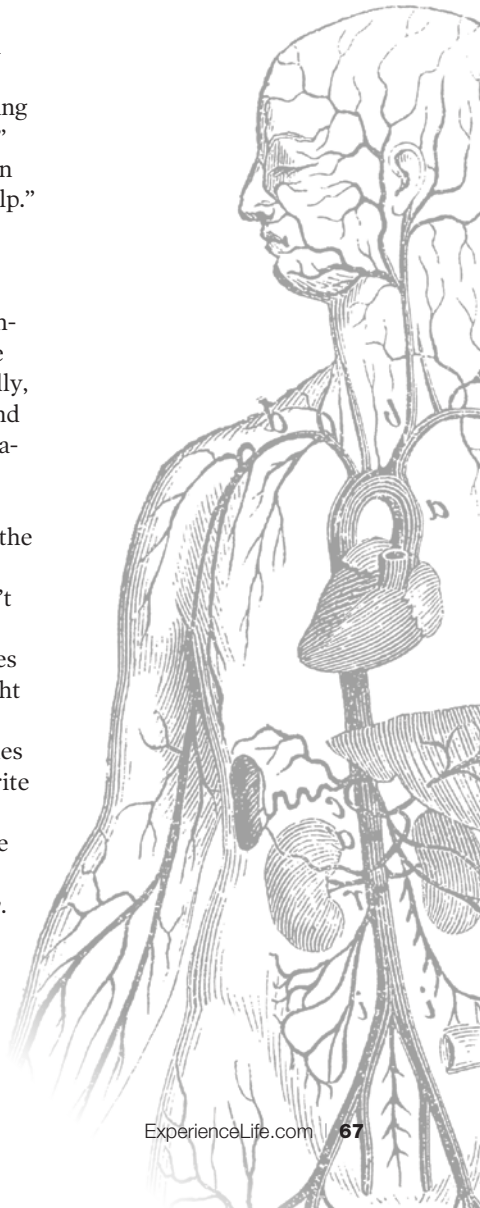
In the early stages of arthritis, homeopathy has been found to soothe pain and reduce inflammation. But once arthritis has advanced, it won’t help with deformed joints.

“When major anatomical changes exist, homeopathy should be thought of as complementary or supportive of other more conventional therapies but not as the primary therapy,” write integrative-health expert Wayne B. Jonas, MD, and fellow integrative practitioner Jennifer Jacobs, MD, MPH, in *Healing With Homeopathy*.

Self-administration for minor health complaints is where homeopathy shines. It’s ideal for families with young kids. Lawson treated her daughter with nothing



WHEN PRESCRIBING A TREATMENT, A HOMEOPATH WILL FIRST EVALUATE A PATIENT’S “CONSTITUTION” — THE SUM TOTAL OF THEIR PHYSICAL, MENTAL, EMOTIONAL, AND SPIRITUAL PROFILE.





HOMEOPATHY DOESN'T WORK BIOCHEMICALLY, SO IT'S A GOOD CHOICE FOR THOSE LOOKING TO CUT BACK ON STANDARD DRUGS.



but homeopathy until she was 7, when she needed antibiotics for strep throat. “Kids are way overmedicated, including for behavioral issues like ADHD,” she argues. “Homeopathy can be far less problematic than prescription meds. But for anything other than acute transitory issues, it should be prescribed by a trained homeopath.”

“A lot of what kids have comes and goes, like teething or an upset stomach,” Butehorn notes. “They can bounce right back with homeopathy, because they don’t have entrenched patterns of energetic insult. The older you are, the more life challenges accumulate that can impact your energy.”

Homeopathy doesn’t work biochemically, so it’s a good choice for those looking to cut back on standard drugs. “Homeopathy is an avenue for those who don’t want to pursue pharmaceuticals, whether because of cost issues or they’re allergic, pregnant, sensitive to medications, or on other medications that might interfere,” Lawson says.

“I work with a lot of people with addiction issues, where the liver is severely compromised,” notes Butehorn. “Homeopathy is an alternative for them that’s not chemically based.”

Unlike herbs and supplements, homeopathic remedies typically don’t interfere with pharmaceutical treatments. But those taking medications often find that when they add these remedies, they’re able to lower their medication dose. “We see this frequently in people on psychiatric medication — when we treat them with antidepressants and homeopathy, sometimes over time the need for the antidepressant decreases.”

Fry has observed the same thing in patients with thyroid conditions: “A remedy can help restore thyroid function, so they might need to titrate down that dose of thyroid medication.”

Because homeopathy can reduce the need for medication, people us-

ing it for chronic conditions should make sure they’re working with their primary-care provider to continually evaluate levels and dosages.

Are there other risks to be aware of? “The worst that can happen is that you take too much of a correct remedy and your symptoms get worse,” says Butehorn. This is known as an “aggravation.” It can happen if someone is particularly sensitive to a remedy, or they take too high of a dose. But it’s generally short-lived and self-resolving; a little strong coffee or some mint can alleviate the situation, Fry says.

Taking an incorrect remedy probably won’t do any harm, she adds; it just won’t have any effect. Unlike over-the-counter medications, homeopathic remedies come with no risk of chemical dependency, overdose, or toxicity.

Whether you’re experimenting with remedies at home or working with a skilled practitioner, homeopathy offers a welcome addition to the healing toolkit. As Jonas and Jacobs note in *Healing With Homeopathy*, “These are drugs . . . that work with the body. These are medicines with eyes and ears.”

MO PERRY is an *Experience Life* contributing editor.

Homeopathy at Home

There are several good resources for those looking to learn enough to self-administer homeopathy at home:

- *The Complete Homeopathy Handbook* by Miranda Castro
- *What’s the Remedy for That?* by Kathi Fry, MD, CTHHom
- *Healing With Homeopathy* by Wayne B. Jonas, MD, and Jennifer Jacobs, MD, MPH

Working With a Homeopath

For minor ailments such as rashes, warts, bruises, an upset stomach, colds, and the flu, self-treatment is generally safe and easy. For more complex or chronic complaints, including fibromyalgia, chronic fatigue, arthritis, and mental-health conditions, it's best to seek out a professional homeopath, says Karen Lawson, MD, ABIHM, codirector of integrative health coaching at the University of Minnesota's Earl E. Bakken Center for Spirituality and Healing. She cautions pregnant women to work under the guidance of a pro.

Complex conditions that haven't responded to conventional treatment are often good candidates for homeopathy. For instance, some homeopaths are seeing positive results treating patients with long COVID.

The first step in working with a homeopath is a substantial intake appointment. Over one to two hours, the practitioner takes a detailed health history and asks questions geared toward understanding a patient's constitution.

"First, I want to make sure they've taken advantage of what science has to offer," says Loretta Butehorn, PhD, DIHom, a psychologist and homeopath in Provincetown, Mass., who often works in tandem with her patients' primary-care providers. "Then I take a history to get their constitution, ask when the problem showed up, what was happening in their life at that time, and get any other symptoms they're experiencing, from head to toe."

Then she chooses a remedy based on the unique jigsaw puzzle presented by that patient.

Kathi Fry, MD, CTHHom, a physician and master homeopath in Boulder, Colo., generally starts patients on a low-dose remedy (6c or 9c for kids; 12c or 30c for adults) and follows up at six weeks. If the remedy seems to be working, she may increase the dose over time.

Unlike medications to manage chronic disease, homeopathic remedies aren't meant for long-term use. The remedies are meant to stimulate the body's natural healing abilities and then be discontinued.

In the United States, homeopathic certifications and diplomas aren't regulated at the national level. (Some states do certify homeopathic training, however; Connecticut, for example, requires that homeopaths also have an MD or DO degree.) But the American Institute of Homeopathy — which actually predates the American Medical Association by three years — oversees a specialized certification.

To receive a Diplomate of Homeotherapeutics (Dht), physicians must obtain 350 education credits and pass written and oral examinations. You can find a homeopathic provider on the American Institute of Homeopathy's website (www.homeopathyusa.org) or those of the North American Society of Homeopaths (www.homeopathy.org) and the Council for Homeopathic Certification (www.homeopathicdirectory.com).



4 ESSENTIAL REMEDIES FOR YOUR AT-HOME HOMEOPATHIC FIRST-AID KIT

1. NUX VOMICA

Good for: Upset stomach from overeating or overindulging.

Homeopathic notes: Derived from the poisonous strychnine tree, nux vomica is ideal for treating heartburn or drowsiness from eating or drinking too much. "The quintessential remedy for ailments from 'high living,' usually the first remedy to take for garden-variety heartburn or indigestion from drinking too much coffee or alcohol or eating too much spicy food," says Kathi Fry, MD, CTHHom.

2. ARNICA MONTANA

Good for: Bruising, shock, head injury.

Homeopathic notes: Arnica's effects are primarily anti-inflammatory: It's good for treating muscle pain, stiffness, swelling from injuries, and bruises. A 2021 meta-analysis published in *Frontiers in Surgery* found arnica to be comparable to pharmaceutical anti-inflammatories for reducing postoperative swelling and bleeding.

3. GELSEMIUM SEMPERVIRENS

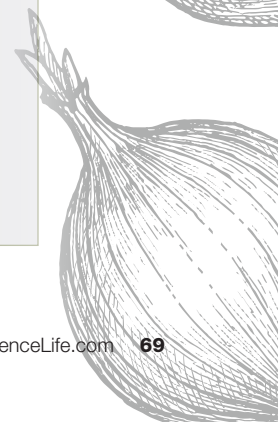
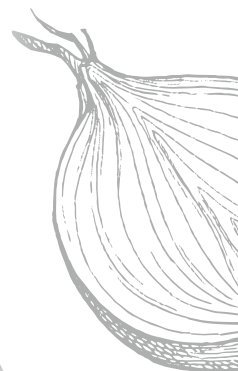
Good for: Headaches, influenza, sleeplessness due to anxiety and anticipation.

Homeopathic notes: "This is a big remedy for the flu, chronic fatigue, and people with postviral fatigue — as in long COVID," says Fry.

4. ALLIUM CEPA

Good for: Allergies, runny nose, watery eyes.

Homeopathic notes: Derived from onion, this remedy is effective for treating a running nose, especially with a clear discharge. "If you've ever chopped an onion with tears streaming down your face, you know what it's like to need *Allium cepa*. The hallmark symptom is a sensation of burning irritation," explains Fry.





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Enjoying the great outdoors comes with a great responsibility: taking care of it. Learn about the seven principles of the Leave No Trace ethic to help preserve our wild spaces in all their glory.

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Plus, discover three new principles of outdoors ethics that are fitting for the 21st century.



Quitting Time

We tend to think giving up is a sign of weakness, but in the right context, quitting can be a strength. Experts explain how to know when it's time to step away.

BY **QUINTON SKINNER**

It's a realization that can come with many signals. For me, it was a persistent sensation of vertigo — as though I were falling while standing still — at a job I was thinking of leaving. For many of us, it's an ineffable emotion around a relationship, a habit, or a situation that might not be giving us what we need.

Sometimes it's someone close to us, telling us what they think we need to hear: It's time to quit. And maybe we resolve to do just that: leave the job, end the romance, pull back from a pattern that doesn't feel right.

But then, as soon as the next day, the doubts start to build. *Is this the right thing to do? What if things get worse? Am I thinking clearly?*

It often turns out that quitting is

one of the hardest things we can do.

"There are a lot of reasons we stick around when we shouldn't," says Annie Duke, author of the forthcoming *Quit: The Power of Knowing When to Walk Away*. "We've sunk costs and resources into the situation we don't want to lose. There's endowment, which is when we value something like a job or an idea more highly than one we don't possess. And there's status-quo bias, when we feel an aversion to the possible loss or regret from switching more keenly" than the discomfort of the current situation.

In other words, the deck can be stacked against us when we try to weigh what we have today versus how things might be if we were to make a change. It's a tendency

reinforced by our language and our social norms: "Hanging in there" and "sticking with it" are positive values, while "being a quitter" is equated with a lack of willpower.

"The actual word 'quitting' is such a problem, with all the baggage it carries," says executive coach Marilee Adams, PhD, author of *Change Your Questions, Change Your Life*. "Instead, in retrospect, it can be a decision to leave something for a positive reason. The word 'quitting' implies there's something wrong happening, and that may not actually be true."

And here's the crucial point: Quitting is hard, it's scary, and it's not always the answer. But sometimes it can be a constructive act that leads to greater personal growth and oppor-

tunity. The key lies in how well we're able to assess our circumstances, and whether we're able to be honest with ourselves about what's happening.

Balancing Values With Change

In her research on quitting, Duke has concluded that we often take too long to make the decision.

"The problem is that we don't quit until we're certain that we have to," says the former professional poker player. "And by then, we're past the point at which we should have."

Duke cites a story about a 1996 Mount Everest expedition during which climbers perished long after they sensibly should have turned back. We can all recall times in our own lives, and those of friends and loved ones, when the value of "stay the course" outlived its usefulness.

"Let's say somebody is running a marathon, and they're a very good runner," Adams notes. "But now they're injured. If they keep going, they might even win the race, but they might suffer permanent damage. Is it quitting if they stop, or is it taking a long-term view of their health?"

A good first step is starting to see the world in terms of opportunities rather than possible calamities. This is the kind of visualization that Duke frames as counter to our fallback nature.

"We have an aversion to uncertainty, so we stick with something we're super unhappy with because we prefer it to the unknown," she explains. "Once we're set on a path, we tend not to see what else is available."

Sometimes our loyalties — to a person, an idea, or an institution — can cloud our ability to recognize other possibilities around us. But we can train ourselves to acknowledge that we can be open to other opportunities without betraying our current

colleagues or denigrating the status quo. Someone might love their job, for instance, but still stay in touch with employment recruiters, Duke explains.

It's also important to distinguish between momentary hardship and a more structural need for change. Making the choice to quit will be more rewarding if it's based on a clear-eyed assessment of our own motivations.

In an episode of the *We Can Do Hard Things* podcast, cohost Amanda Doyle identifies the heart of the question: "Do I want to become free of this thing because this thing is hard for me?" she asks.

"Or do I want to become free of this thing because this thing is not for me, it is wrong for me?"

Once we've understood that we need a change, these are the tough questions. It's also worth remembering that humans tend to think in binaries: good or bad, right or wrong. But gray areas can be fertile ground for personal growth.

Often, we avoid making a change because we fear we might become unhappier as a result, rather than

changing direction with the understanding that — whatever happens — it simply represents the continuing unfolding of possibility and opportunities for transformation.

To help clarify your thinking, Adams says, ask yourself a few crucial questions about your values and how they might have changed over time: "What were my goals when I started this job, or this marriage, and how did my goals at that time reflect my values and my desires?" she says. "Now, down the road into the present time, what are my goals now? And how do they reflect my current values and desires? Given who I am now, and what I know now, would I make the same choice? If yes, *why*? And if no, *why*?"

When we're able to take stock based on our values and self-awareness, we can make a conscious choice to stay where we are for the right reasons or to make a positive change from a position of strength. In the same podcast, Doyle offers a fascinating fact: "The Latin origin of the word 'quit' is *quietus*," she points out. "And it actually means 'to set free.'"

To sustain what gives us strength and to surrender what doesn't: This seems like a good definition of freedom. 🌀

QUINTON SKINNER is a Minneapolis-based writer.



We have an aversion to uncertainty, so we stick with something we're super unhappy with because we prefer it to the unknown."

FIND A QUITTING COACH

Annie Duke, author of the forthcoming *Quit: The Power of Knowing When to Walk Away*, describes that moment when you're talking to a friend who seems to need a change. "People will say, 'I'm thinking about changing jobs.' But you see them a few weeks later, and they still haven't made a decision."




Then she adds a twist. "Here's the key to that story: *You do it, too*. That's what we all need to realize. We can see it so clearly in other people, but [we] don't think that we might be doing the exact same thing."

Duke's strategy: Find a "quitting coach," someone you trust to offer unfiltered input. "You need someone to tell you when what you're doing is no longer worthwhile. Sometimes our friends have been looking at us and thinking it already."

This can be reciprocal. The two of you can make an agreement, whether it's in your personal lives or a business setting, to give honest opinions with the understanding that hurt feelings will be left out of the mix.

If we're going to make a big change, an outside perspective can be the sort of handhold that makes it possible.

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A Lighter Form of Lithium

Lithium carbonate is a popular treatment for bipolar disorder, but a milder form of this mineral can be used for everyday mood support.

BY HENRY EMMONS, MD

There is a well in Scotland, called St. Maelrubha's, where during the Middle Ages the water was reputed to cure insanity. Researchers later speculated that those cures might not have been purely mystical; the water may have contained lithium, a naturally occurring mineral that medical professionals now view as the gold standard for treating bipolar disorder.

The modern medical form of lithium uses lithium carbonate to help stabilize mood. It is potent, available only by prescription, and taken in high doses — around 1,000 mg per day. Prescription lithium is also associated with several risks and side effects, such as tremor, acne, fatigue, and, more concerning, impaired thyroid and kidney function.

Still, lithium comes in more than one form. Lithium orotate can also stabilize mood — and in a much gentler way than the carbonate version. It's available over the counter and is taken in microdoses, much like the supplementary minerals zinc and selenium. It is considered safe, and I use it in my mental-health practice as a gentle support for people who are struggling with mood instability.

Minerals and Mood

Minerals are essential for most of the functions in the body and brain. Magnesium helps neurons reset after creating an electrical signal. Calcium is a key ingredient in bone tissue; it also plays a role in the function of neurons and neurotransmitters. Zinc helps regulate cellular metabolism, including in neurons.

These essential minerals keep the brain and the rest of the nervous sys-

tem humming by producing energy, maintaining focus, or providing protection from toxins, including those from normal cellular metabolism.

Like these other minerals, lithium is present in trace amounts throughout the body. It is not essential to brain function, but it does play a salutary role in it. Low lithium levels may be associated with blood-sugar imbalance in insulin-sensitive tissues; developmental delay in children; and attention issues, nervousness, and insomnia.

How Lithium Orotate Works

Virtually all prescription psychiatric drugs work on the neurotransmitters, either by interacting with the receptors on the cell membrane of a neuron or by increasing the production of a certain brain chemical, such as serotonin or dopamine.

Lithium is different. This mineral gets inside of neurons, affecting their inner workings in ways that can greatly benefit mood. It supports the brain's natural detoxification process and promotes the natural balance of brain neurotransmitters.

Even in microdoses, lithium orotate can help calm brain activity and promote mood stability. Recent research also suggests that lithium microdoses may help prevent degenerative conditions like Alzheimer's disease.

When to Try Lithium Orotate

Lithium orotate may be most helpful for people with a strong family history of depression or manic depression, or whose problems with mood began early in life, especially when the condition recurs in the absence of obvious triggers.

I recommend it for anyone struggling with irritability, agitation, or frequent mood swings. One can also take microdoses of lithium as an adjunct to medications; it can help them work again when their effectiveness has begun to wane.

Lithium orotate doses are small, which is part of what makes this supplement so safe. Adults typically start with 10 mg daily for the first week or two, and then increase to 20 mg daily as needed.

For children, I usually start even smaller, with a 2.5 to 5 mg dose in liquid or tablet form, slowly increasing the dose to a maximum of around 10 mg daily until target symptoms show improvement.

Side effects are uncommon at such low doses, though slight sedation occasionally occurs. Taking the dose at bedtime can resolve this.

The only time I avoid recommending lithium orotate is when someone has kidney or thyroid problems, because the carbonate form can theoretically trigger issues with those. (Still, I have yet to see any significant problems with the microdose.)

For anyone who's already taking any psychiatric medications, it's always important to talk to your health professional before adding lithium orotate or any supplement.



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

Outdoor Ethics

Leave No Trace principles help us protect and care for our wild spaces.

BY COURTNEY HELGOE

Waking up in Minnesota's Boundary Waters Canoe Area Wilderness involves anticipation. I may be cold and stiff, but I know that as soon as I squirm back into my dirty clothes and unzip the tent, something noteworthy will be waiting outside.

It might be an osprey dropping from the sky to catch a fish. It might be a haze of steam rising from the lake in dawn's half-light. It might be a moose and her calf swimming from one shore to the other.

Or it might be a 10-pound block of American cheese.

The one I found was peeking out of the dirt between the roots of a downed tree, perhaps buried there by an exhausted camp counselor sick of portaging it.

A downed tree has better things to do — feed microbes, grow mushrooms, shelter grouse — than try to digest cheese and its plastic wrapper, so the block had to come with me. Finders keepers.

Part of the honor code of backcountry camping means adhering to a Leave No Trace (LNT) ethic to minimize the human impact on the outdoors. That cheese is the most memorable trace my spouse and I have come across in our years in the wilderness. It's also the heaviest one we've ever packed out.

Leaving no trace takes effort, but it's the price of admission to wild spaces. If we want to keep them habitable for the creatures and plants that live there, and hope to ensure their continued existence for all, then we need to pay attention to our own impact.

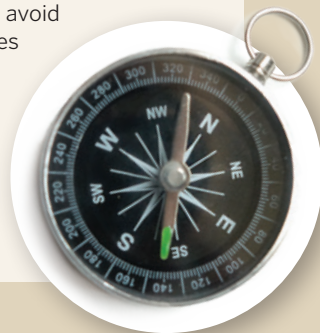
The Seven Principles of LEAVE NO TRACE

1. PLAN AHEAD AND PREPARE

It's easy to be lulled by romantic images of the outdoors, but wild spaces are unpredictable. Most rangers can recount hair-raising stories about campers who put themselves at risk because they were unprepared for the conditions they faced.

When you plan a trip, be realistic about your experience level and capacity. And remember that the best trip is the one you can enjoy without harming anyone, including the wilderness. Some basics:

- **STUDY** the weather forecast — and prepare for it to change.
- **EXPECT** electronics to fail: Bring a paper map and compass.
- **ARRIVE** early in the day so you have time to set up camp before dark to minimize your impact. Bring a sturdy tent or hammock and avoid using natural resources for shelter.
- **CARRY** gear for extreme weather, including extra food and fuel in case you get waylaid.





2. TRAVEL AND CAMP ON DURABLE SURFACES

Stick to trails to help protect the land and wildlife around you. When you need a little off-trail privacy to relieve yourself, choose a spot with less vegetation or that's already trampled. Same goes for pitching your tent: Find a well-used spot or a sturdy surface with low to no vegetation.

The most durable surfaces include rock, sand, gravel, ice, and snow, as well as hardy vegetation like dry grasses. On desert trips, watch for cryptobiotic crust, or "living soil." It contains microbes that retain moisture and prevent erosion; it takes decades to rebuild. If you must cross it, "tiptoe on the crypto."



3. DISPOSE OF WASTE PROPERLY

If you pack it in, pack it out. To reduce trash, remove store packaging and repack your food in silicone pouches before you go. Portion food to avoid leftovers. Don't burn trash in the wild; it won't degrade fully and may release toxins. Inspect your campsite for random twist ties, fishing line, or blocks of cheese. Even if they weren't yours, they are now. That's the LNT way.

Human solid waste can contaminate water sources, so in the absence of a latrine, burying it in a "cat hole" is your best option: Pack a garden trowel and dig a hole 6 to 8 inches deep at least 200 feet (about 70 steps) from water. If you're traveling in the desert or a narrow river canyon, you may need to pack out human waste. It's the price of paradise.



4. LEAVE WHAT YOU FIND

It's tempting to bring home souvenirs, but the wilderness needs its stuff. Songbirds use twigs to make nests. Rocks protect shorelines from erosion. Flowers provide nectar for pollinators. Try taking a photo or sketching an image of something that catches your eye rather than pocketing it.

You'll also want to leave things as you found them. Dismantle any firewood stacks or rings when leaving camp. Avoid digging trenches around tents. Never cut down a live tree for firewood or shelter. And if you're lucky enough to discover some cultural artifacts on public lands, say a word of thanks and move on without them.

5. MINIMIZE CAMPFIRE IMPACTS

Camping can feel synonymous with campfires. Yet the advent of lightweight camp stoves has made fires largely unnecessary, which is a good thing, given the growing risk of wildfires. The best way to reduce the impact of campfires is not to start them: Use a stove for cooking and solar lanterns for light. This also eliminates the need for firewood — one more way to minimize your impact.

If you decide to have a fire for warmth, LNT offers these best practices:

- **GATHER** firewood only where it's abundant, and use only dead or downed wood with a diameter no larger than your wrist.
- **BUILD** within an existing fire ring or grate.
- **KEEP** fires small and burn them entirely to ash.
- **DOUSE** and stir embers to ensure they're extinguished.



LEAVE NO TRACE IN THE 21ST CENTURY

Social media and modern climate change have emerged since the Leave No Trace principles were introduced. Both generate new concerns for wilderness visitors and have prompted some to suggest the following:

Think before you post. Sharing gorgeous pictures of outdoor adventures is fun, and it can be a powerful way to inspire concern for wild spaces. Yet posting images with specific locations can also lead to more traffic than the land can handle. The Forest Service reduced the number of permits to visit the Boundary Waters in 2022 by 13 percent after 2020 saw the highest number of visitors in a decade.

While some argue that restricting access and concealing locations reinforce a privileged access to the wilderness, the fact remains that the land itself has limits. Avoid geotagging. Consider tagging the state or region in your posts rather than a specific location. Inspired viewers can still do their research and find their way, and the land will be less stressed.

Leave tech at home. Drones are banned from all areas under National Park Service jurisdiction, and for good reason. A recent Colorado State University study found that any outdoor recreation, even hiking, in protected areas reduces species reproduction and survival rates in local wildlife. Traveling quietly — without speakers or drones — is an easy way to limit this negative impact.

Give back. An ethical relationship with the wilderness is a reciprocal one. Consider volunteering to do trail maintenance or restoration projects. You can find a state-by-state list of advocacy organizations that accept volunteers via the Access Fund (www.accessfund.org/take-action/volunteer). You might also consider donating to conservation organizations. Their tireless work is one of the main reasons wild lands still exist.

6. RESPECT WILDLIFE

One of the great gifts of exploring the wilderness is the chance to witness wild species in their element, and the best way to return the favor is to give them space. Pitch your tent at least 200 feet (about 70 steps) away from water to ensure that animals can maintain access for drinking. Carry binoculars so you can get a closer look without approaching.

And keep a respectful silence — except in bear country, where talking or singing prevents you from surprising any bears and provoking a defensive response.



7. BE CONSIDERATE OF OTHERS

Most of us go to remote places to connect with nature, not other people. When you do encounter humans, use the same rule of thumb as you do for other critters: Observe a respectful distance.

Remember that noise travels great distances in open spaces. My brother-in-law once read a chapter of a Harry Potter book to his daughters in a canyon campsite; an unseen group across the river clapped when he was finished. Keep your voice low and avoid shouting to other group members on the trail, in camp, and on the water.

Finally, unless you're hiking or camping during hunting season, do your best to blend in with your surroundings by avoiding brightly colored clothes or tents. Stick with earth-tone colors to keep the visual disruption to a minimum. This is your chance to be a part of nature. Embrace it. 🌿



COURTNEY HELGOE is the *Experience Life* features editor.



Anton Krupicka races in the 2021 Leadville 100 which resulted in an amazing third place finish.
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LUTSEN 99ER JUN. 25

LEADVILLE MTB CAMP JUN. 30-JUL. 1

SILVER RUSH 50 MILE TRAIL RUN JUL. 9

CRUSHER IN THE TUSHAR JUL. 9

SILVER RUSH 50 MILE MOUNTAIN BIKE JUL. 10

TAHOE TRAIL JUL. 16

NEW YORK CITY TRIATHLON JUL. 24

LEADVILLE STAGE RACE JUL. 29-31

LEADVILLE TRAIL 100 MTB AUG. 13

LEADVILLE TRAIL 10K RUN AUG. 14

LEADVILLE TRAIL 100 RUN AUG. 20

CHICAGO TRIATHLON KIDS & SUPERSPRINT AUG. 27

CHICAGO TRIATHLON AUG. 28

CHEQUAMEGON MTB FESTIVAL SEP. 17

BARN BURNER SEP. 17

CHICAGO HALF MARATHON SEP. 25

THE RAD DIRT FEST OCT. 8

BIG SUGAR GRAVEL OCT. 22

AUSTIN RATTLER MTB / RUN NOV. 5

TURKEY DAY - CHICAGO NOV. 24

TURKEY DAY - MIAMI NOV. 24



LIFETIME®

Practicing Peace in Public

A variety of stresses have turned many public interactions into angry encounters. Learn how to calm yourself — and the situation — with these strategies.

BY JON SPAYDE

A grocery customer wanted Cambozola, a type of soft cheese, and couldn't find it in the dairy case. He summoned an employee, who couldn't see any either. He demanded that she check the backroom and the store computer. No Cambozola.

The employee, Anna Luna, told the *New York Times* what happened next: "Have you seen a man in his 60s have a full temper tantrum because we don't have the expensive imported cheese he wants?" she said. "You're looking at someone and thinking, *I don't think this is about the cheese.*"

No, it probably isn't. That Cambozola enthusiast was probably on edge in ways that may feel familiar to many of us. We've been rocked by a global pandemic, polarized by politics, angered by — well, angered by a lot of the above. We want normalcy, we want our personal pleasures back. We want our cheese!

Some people are even more wound up than that angry shopper. There are rows over wearing masks in retail establishments, red-blue political brouhahas, and a general rise in public violence.

The media have provided many a story of an airline passenger livid over being told to wear a mask or being denied some service because of safety concerns — and lashing out



ILLUSTRATION: MITCH BLUNT

at a flight attendant or other passengers. The FAA investigated 146 incidents of unruly or violent air-passenger behavior in 2019, according to a CNN report. In 2021, more than 1,000 of nearly 6,000 cases were serious enough to warrant investigation.

Other statistics bear out the idea that many of us are at the end of our tethers. The *Times* reports that the United States is seeing the worst surge in traffic deaths since the 1940s, quoting one expert's partial explanation: "There's a portion of the popula-

tion that is incredibly frustrated [and] enraged, and some of that behavior shows up in their driving."

The vast majority of the population has managed to remain relatively calm, but reentering public space, interacting with others, or just driving down the street under these circumstances might subject us to some added stress. Our own concerns, or the behavior of others, might be more likely to trigger an angry response than in more peaceful times. These tips can help you keep calm under pressure.

Calming Counsel

UNDERSTAND THAT YOU HAVE BEEN AFFECTED.

Psychiatrist James Gordon, MD, founder of the Washington, D.C.-based Center for Mind-Body Medicine and author of *Transforming Trauma: The Path to Hope and Healing*, advises us to accept that we're all struggling to one degree or another. Even if we haven't endured dramatic or tragic experiences during the pandemic or other recent disturbing events, we have been shaken.

"Everybody is traumatized, and we have to be self-aware about that," he says. "We need to understand what that does to us. If we understand that, it will make it easier to deal with difficult or frustrating situations."

RECOGNIZE YOUR VULNERABILITY.

Richard Schaub, PhD, a counseling psychologist in Huntington, N.Y., suggests that the last several years have reminded us more than ever of our vulnerability. We've been confronting mass death, significant disruption of our daily lives, and any number of other stressors. These reminders produce fear.

In the face of fear, explains Schaub, "the human instinctual response is to protect ourselves. When someone's vulnerability gets stirred up by the latest statistic or headline or whatever, it's purely natural and normal to go into fight, flight, or freeze as a protective reaction. These days, we are seeing more of all three. The worst, in terms of public behavior, of course, is to fight."

Gordon notes that in this time of trauma, "other people's behaviors that might have been mildly annoying, or behaviors we wouldn't have even paid attention to, we now tend to focus on." Many of us, he adds, are also consciously or unconsciously practicing a kind of hypervigilance: looking to see who is wearing a mask and who isn't; who might be angry; or who might represent a threat.

"Up until a couple of years ago," he says, "I never paid that much attention to who was in the grocery store with me, or how they were dressed, or how they were comporting themselves. I pay much more attention to it now."

THINK OF OTHERS.

The golden rule may seem simplistic, but it never really goes out of style. Both Schaub and Gordon recognize that when we are in a public space and dealing with others, we should understand that they deserve the same kind of consideration that we want for ourselves.

By the same token, all of us have a responsibility to make public spaces safer and healthier for everybody, which requires us to move beyond our ego and its concerns.

TALK THINGS OVER.

Gordon recommends that we come clean about our anxieties, because social support is a critical aspect of healing from trauma. "Talk with your friends about your fears," he says. "Share your experiences of stressful situations with each other. Maybe you will laugh a little, and that will give you some perspective on your experience, so you won't be so wound up next time. You'll see a difficult situation as a manageable prospect rather than something that's totally overwhelming."

DEAL WITH YOUR ANXIETY TO CLEAR YOUR MIND.

All of these considerations are important, but both Schaub and Gordon point out that when we're triggered by vulnerability and fear, they may not be the first things that come to mind — and even if they are, we may not be able to de-escalate our emotional response and put them into practice without taking some practical measures.

"These have to be simple and easy to remember," says Schaub.

Gordon adds that one of the most tried-and-true methods of calming stress, and thus putting a little distance between you and the situation you're in, is soft belly breathing: focusing on the word "soft" as you inhale through your nose and "belly" as you exhale through your mouth, with your belly relaxed. This technique brings more oxygen into your bloodstream and activates your vagus nerve, slowing your heart rate and telling your parasympathetic nervous system, which controls the hormones that alert your body to threats, that all is well. (For more advice on better breathing, see ELmag.com/breathing.)

"Deep breathing doesn't work for everybody," Schaub points out. "It actually makes some people more panicky. The thing I use is a simple phrase: my first name followed by 'let go.' I say it silently to myself for about a minute. It seems almost too simple, but it works very well."

ASSESS THE SITUATION, SEEK SOLUTIONS, AND ASK FOR HELP IF NECESSARY.

If you've defused a fight-flight-freeze response and obtained a little distance and perspective on a difficult situation — whether it's a long wait, a problem with another person, or potential road rage — you're ready to take necessary action in the right spirit. And that means seeking a solution rather than creating a confrontation.

Gordon tells the story of his brother, whose seatmate on an airplane wasn't wearing a mask. "He asked the man to put one on and was told it was none of his business. He could have acted out, but instead he calmly called the flight attendant over and asked to be seated elsewhere. He kept his cool. He understood that having a head-banging confrontation with the man wasn't the only way to resolve this problem. He didn't take on the problem himself."

His point: Do your best to choose creative solutions over anger. The explosive cheese shopper, for example, could have asked the store manager for a recommendation for a similar cheese to try. And you can at least imagine that the driver who cuts you off in traffic is hurrying to visit a sick friend. 🚗

JON SPAYDE is an *Experience Life* contributing editor.

A photograph of two women with dark curly hair, one in a purple top and one in a blue and white striped top, smiling and smelling a large bouquet of bright yellow sunflowers. The scene is outdoors with a bright, sunny background.

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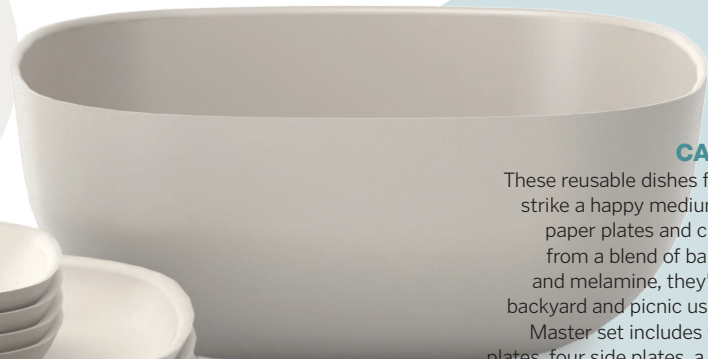
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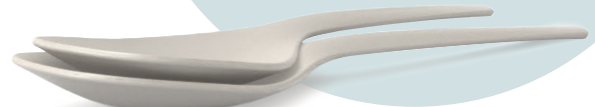
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These reusable dishes from Ekobo strike a happy medium between paper plates and china. Made from a blend of bamboo fiber and melamine, they're ideal for backyard and picnic use. The BBQ Master set includes four dinner plates, four side plates, a large salad bowl, and serving utensils. \$117 at www.by-ekobo.com.



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All in on Pickleball

This sport has captured our founder's attention — and a lot of his time, too!

BY **BAHRAM AKRADI**

Every now and then, something comes along that's a true phenomenon — a remarkable development or trend that catches us by surprise and captures our attention. In the world of sports, such a phenomenon has emerged in recent years, taking hold in our collective psyche: pickleball.

If you had told me a year ago that I would be spending so much time playing, thinking about, and talking about this sport, I would have cheerfully challenged you. But now I'm obsessed.

It started last fall, while I was playing tennis at Life Time Eden Prairie Athletic in Minnesota. "You should try pickleball!" longtime member Barbara and tennis pro Raj suggested.

"Absolutely not," I quickly responded. "I don't want this to impact my already not-so-good tennis game."

Still, I stuck around and watched them play for a few minutes and was intrigued. One Sunday shortly thereafter, I got on the court myself.

A few hours later, I was hooked — in the best possible way. I'm now playing at least a couple of times per week. Sometimes it's with family and friends; other times it's during open play, when I go up against strangers, who quickly become friendly competitors.

Developed in the mid-1960s (for more on its history, check out Ben Johns's cover story on page 16), pickleball was relatively obscure until just a few years ago, when it started gaining traction. Some attribute its rapid growth to how quickly you can learn the game; others credit its playful, social aspect.

Regardless, it's now the world's fastest-growing sport, with an esti-

mated 4.8 million devotees — almost double the number from just five years ago.

The more I play, the more I understand why pickleball is catching on — and what an amazing opportunity it is to get more people moving and help them get healthier, too.

- **It's accessible for many people.**

In fact, it's the *most* accessible sport I've ever witnessed in my life. Unlike tennis, which takes months (if not years) of training, the learning curve for pickleball is 15 minutes. Regardless of age, everyone can quickly learn to play.

- **It's as competitive as you make it.**

Even though I'm a beginner and not very good, I still tend to be pretty serious about my game. When I play, I'm in it to win, and I give it my best effort, every time. The level of competitiveness you bring to the court, however, is entirely up to you.

- **It's social.** For many, pickleball is a great way to get your heart pumping and adrenaline flowing with friends. Many people play doubles, but admittedly, I love playing singles — then I can blame only myself when a point or game doesn't go as planned. It's a great way to meet new people; just drop in for open play or join a mixer.

- **It's healthy.** Pickleball is a low-impact sport that can boost your fitness level. Research also shows it can support healthy blood pressure and cardiovascular function — plus, it's a legitimate aerobic workout.

On a personal level, pickleball inadvertently helped me get ready for the summer biking season. In early May, I start training for the Leadville Trail 90 MTB in August, which means I typically need to lose about 20 pounds to

get in optimal biking shape. This year, I was already down half of that thanks to pickleball — I didn't make any other changes to my routine. It was fun to reap these unexpected results from something I can't wait to do.

- **It's a unifying force.** From my perspective, pickleball is bringing together people from all across the country in a way that I haven't seen anything else do. Step onto one of Life Time's courts, for instance, and you will see the most beautiful melting pot — all ages, all genders, all ethnicities, all abilities. Everyone feels welcome.


For all of these reasons, Life Time — like so many of the players who have taken to the court — is going all in on pickleball. And thanks to the existing footprint of our athletic country clubs across the United States (and a few in Canada, too), we're aiming to be not only the biggest provider of the sport, but also the best.

We're in the process of modifying and updating many of our spaces, and by the time this *Experience Life* issue is in your hands, we'll have more than 200 dedicated pickleball courts across our 160-plus locations — with more to come as we open more Life Times in the months and years ahead.

We're doing this because I imagine pickleball might just be the sport that gets the largest number of people moving — for fun, connection, competition, and the simple love of the game. And Life Time is poised to be *the* place where you pick up that paddle and get playing. See you on the court!

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





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