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Experience Life

May 2023

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WHAT YOUR HUNGER IS TRYING TO TELL YOU

Many of us have been conditioned to repress or ignore hunger, or to distrust its signals. Yet hunger and cravings can clue us in to what we need — physically and emotionally. We just have to tune in to them.

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NO GUTS, NO GLORY

The multitudes of bacteria in our guts — the microbiome — play a central role in immune function, digestion, nutrient absorption, and brain and mental health. But do they also affect our athletic performance? And will we someday be able to pop a pill containing specially formulated doses of probiotics to "train" for sports?

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GLUTEN? IT'S COMPLICATED . . .

Awareness of gluten-related issues has been on the rise in recent years, and dealing with the health effects of this protein is a challenge for many. We delve into the latest research on celiac disease and gluten sensitivity, and we share what leading experts know about finding answers — and relief.

By Mo Perry

In Every Issue

Volume 25, Issue 4

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REAL LIFE

Digital

Spring Salads

Salads are anything but dull when you think creatively! We've rounded up a few of our favorite spring salads and salad dressings to help you get inspired to try some new combinations and fresh ingredients.

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We Love

CHEF YIA VANG
UNION HMONG KITCHEN

Despite being featured in *Bon Appétit*, competing on Netflix's *Iron Chef*, running Union Hmong Kitchen in Minneapolis, and launching his own line of spice blends, chef Yia Vang is still drawn to the heart of why he began cooking: community.

"I grew up cooking for my family," he says. "Food drew people together — this is something I noticed at a young age."

Our need to share stories, life experiences, and moments with each other is what makes us human, says Vang. And a key part of that sharing is food.

When people gather, he says, "food jumpstarts the community. If it's not there, it feels like something is missing. People want to give to each other — even just a glass of water or a cup of coffee. As human beings, we were created for community. We aren't meant to be alone."

Read more about Chef Vang's food philosophy — and his flavorful open-fire grilled dishes — at **ELmag.com/chefvang.**

ROAD TRIP!

Get inspired to hit the road with four classic trips. They're packed with history and adventure — you might just spend more time out of your car than in it.
ELmag.com/roadtrips

5 FOIL-PACK DINNERS

Perfect for camping, grilling, or a mess-free meal in your kitchen, foil-pack meals are simple and satisfying.
ELmag.com/foilpackmeals

FOREST BATHING

A *shinrin-yoku* retreat provides opportunities to build a healthy connection with nature and improve your well-being.
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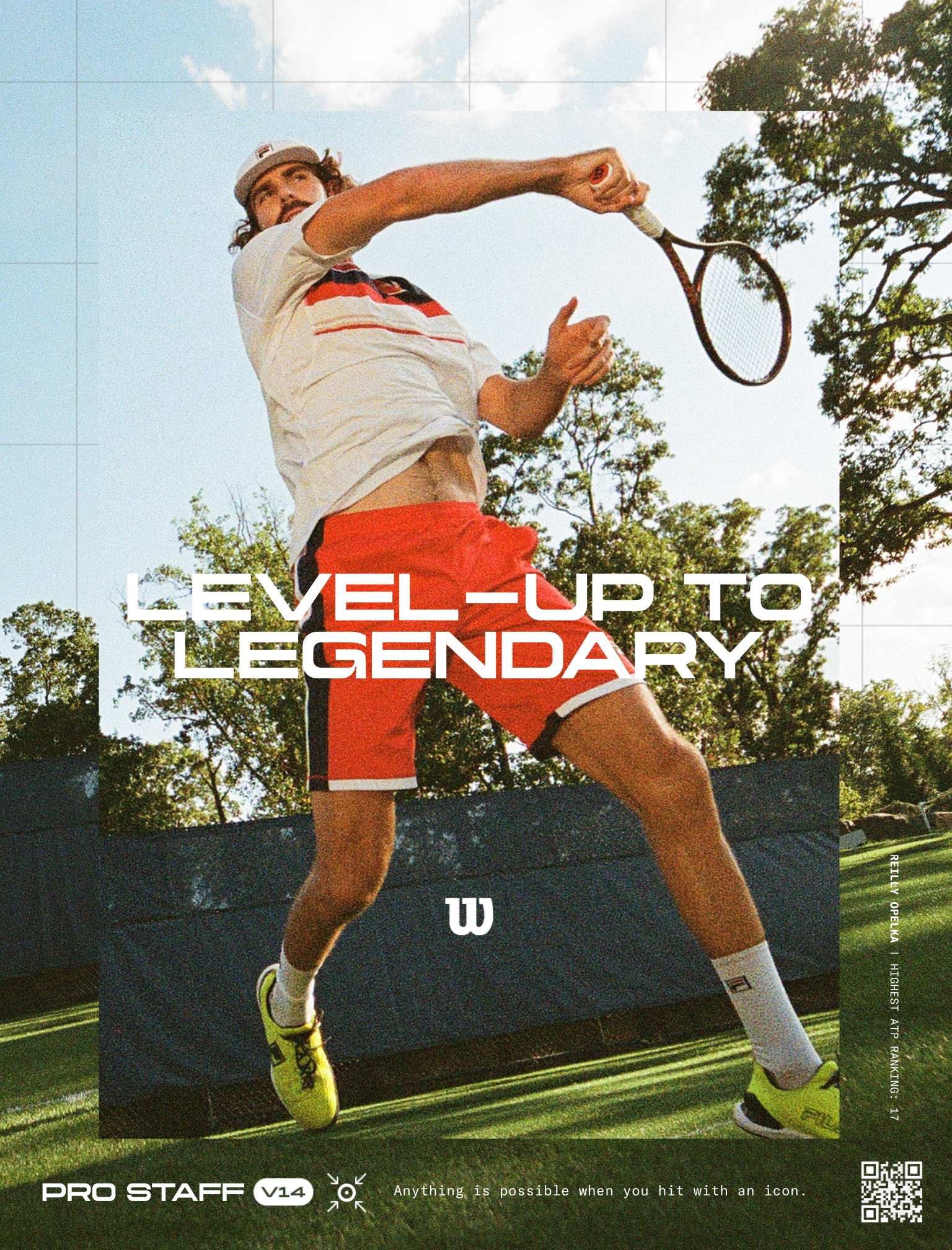
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Cover, p. 16, p. 33–36, p. 43, and p. 46–49: Terry Brennan (photographer); Betsy Nelson (food styling).

Page 4 (food): Andrea D'Agosto, (Vang head shot): Lauren Cutshall; p. 7: Sara Rubinstein; p. 31 (bottom): Chad Holder; p. 78: Hannah Bernhardt; p. 79: Kristin Misik.

The stock images in this magazine were purchased from Getty Images.

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EXPERIENCE LIFE Magazine (ISSN 1537-6656) is published eight times a year — January/February, March, April, May, June, July/August, September/October, and November/December — by LIFE TIME, 2902 Corporate Place, Chanhassen, MN 55317. SUBSCRIPTION RATE: One year (8 issues) $27.95; two years (16 issues) $44.95. LIFE TIME MEMBERS: For member questions, cancellations, or change of address, call Member Relations at 888-430-6432 or email subs@experiencelife.com. NON–LIFE TIME MEMBERS: For nonmember questions, cancellations, or change of address, call 800-897-4056 or email ELFcustserv@cdsfulfillment.com. Periodicals postage paid at Chanhassen, MN 55317 and additional mailing offices. ISSUE DATE: May 2023. POSTMASTER: Send address changes to Carrie Stafford, EXPERIENCE LIFE Magazine, 2145 Ford Parkway, Suite 302, St. Paul, MN 55116.

LIFE TIME® HEALTHY WAY OF LIFE

A Recipe for Making a Magazine

Our annual Food Issue is always one of the *Experience Life* team's favorites to create each year. As we gather around the conference room table to plan it, the enthusiasm and energy are palpable: We are passionate about food, and that's evident as we discuss article ideas, potential cover concepts, and the many factors that influence our food systems and culture. Inevitably, there are more stories than we have room to print — we could publish multiple food issues each year and never get our fill.

For its part, this year's installment features a compelling selection from that pile of possibilities. There are rundowns on the latest research on gut health and gluten (see pages 56 and 62), gotta-try recipes (see pages 34, 43, and 46), nutrition insights, and much more. It's different from years past, however, in that it has a new dynamic look and feel.

Rather than featuring a well-known personality or rising star on the cover, as has been our tradition, we decided to shift to a broader lifestyle approach in 2023. When Lydia Anderson, our executive creative director, initially shared this change with the team, she was met with oohs and aahs — for this issue, in particular.

The cover mockups featuring colorful, vibrant dishes packed full of nutritious, beautiful produce captured our attention (and made our mouths water). We were all in.

But bringing the concept to life was a little more complicated: Of all the dishes we could potentially spotlight, how could we choose just one? And what is the cover story if there's no cover *person* — or in the case of the Food Issue, no chef or foodie to get to know?

Ultimately, we reverse engineered the cover concept and story. We created a vision board of delectable possibilities. We discussed colors, shapes, and textures. We debated flavors and food influences and origins.

Eventually, we identified fare that fits the season and that meets our nutrition philosophy and criteria. Then we got to work, pulling all the ingredients — err, visual and editorial elements! — together in our own unique way.

In deciding to mix things up for this edition, we messed with our usual recipe, one that's been reliable and satisfying for quite some time. What you have here is the result of that experiment. (Shout-out to recipe developer Maddie Augustin, food stylist Betsy Nelson, and photographer Terry Brennan for supporting us in making it happen.)

My take? It's a refreshing twist that was worth the effort. Although many of the ingredients are the same — the majority of the departments you look forward to are still here — you may notice a couple key substitutions. In addition to the new cover strategy, we also swapped our usual cover story for "Cook the Cover" (page 34). These spring-roll dishes bump up our recipe quotient and hopefully provide you with some new mealtime (snacktime, anytime!) inspiration.

So take a read through and let me know what you think. I'm optimistic that you'll enjoy the results as I much as I do — and maybe be willing to shake things up from time to time in your own kitchen *and* life, too.

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.

> **Ultimately, we reverse engineered the cover concept and story.** We created a vision board of delectable possibilities. We discussed colors, shapes, and textures. We debated flavors and food influences and origins."

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Talk to Us

GET UP, STAND UP

[On "Six Exercises to Help You Get Down on the Floor — and Up off the Floor — With Ease," January/February 2023]

This is a very timely article for me. Five years ago, I had a hip replaced and did well with the physical therapy. I had a physical job for 35 years and was very strong, but after my hip replacement, I realized that I could not remember how to get down on the floor without using my hands and assistive devices. I knew it had to do with strengthening my body, but I had no idea how to start. Thank you for the concise and easy-to-follow instructions.
Merle P.

This workout was perfect for me after a year of recovering from abdominal surgeries in addition to giving birth to my beautiful daughter. Standing up and sitting down were things I had to learn again. This is great for me for gaining strength to get up and down — while holding my almost-1-year-old.
Janelle M.

Great tips for us seniors. As we enter our golden years, staying active is key to obtaining more of those years without medical assistance or dependency on others.
Thomas W.

EMBRACING CHANGE

I'm loving the Jonah Kest profile ("Jonah Kest on the Power of Yoga") in the January/February issue. How timely to launch 2023 with the timeless yoga mindset. Kest stresses mind–body balance. Result: It shapes attitude. Outcome: There's a lasting dynamic effect.

I have witnessed the sorrows of the change-averse mindset and the anger ulcer it leaves behind, contaminating the memory for the surviving loved ones. This is such an appropriate article to remind and warn us that everything continually changes.

Outcome: The adaptive mindset and the sweet, serene legacy you'll one day leave behind.
Kate S.

JOYFUL MOTIVATION

I am a single mother of two beautiful daughters, and I just wanted to tell you that your magazine has brought so much curiosity, joy, and good times to my life. I love reading all your articles, but my favorite is always Jamie Martin's Editor's Note. I just read "A Fresh Slate" in the January/February 2023 issue, and I got so pumped and motivated (even emotional) to become the best version of myself. My heart tells me I'll succeed — and I will keep reading.
Erika B.

A GREAT START TO THE DAY

My morning starts with a walk ("January Challenge: Get Outside Every Day," January/February 2023). Of course, it has everything to do with my wee beastie who loves to walk. We usually manage about a mile before we come in for breakfast. It's not exactly a cardio workout when Riley needs to sniff every blade of grass, but we walk and enjoy being outside as a way to start our day.
@justdw876

UNTANGLING A NEUROLOGICAL MYSTERY

This is a very informative article ("What Is a Functional Neurological Disorder?," January/February 2023). I believe this may actually be what my sister has been dealing with since a virus put her in a coma for a month. It's been a long road, and she's only halfway back. I will inquire with her doctor.
Kim S.

IDENTITY INSIGHTS

I'm catching up on reading some of my magazines and just read "Identity Crisis" in your December 2022 issue. It is very well done, and it so resonated with me. I definitely do identify as a cyclist, although not of the racing or group-rides kind. But I also do other activities, such as walking, yoga, and strength training, and I really like the idea of reframing my "I am" from one activity I'm really good at and passionate about ("I am a cyclist") to "I am active" and "verbing" the rest. "I bike, I do yoga, I walk, I lift." Thank you for this helpful insight.
Tamara B.

READER REVIEWS

[On the "Begin Again" issue, January/February 2023]

I just had to write and tell you how much I love *Experience Life*. I think it is by far the best magazine, filled with so much high-quality information. This edition was truly fabulous. Your hard work shows!
Jill A.

Just received my copy in the mail. Love the issue, and it's so relevant. Thank you!
John S.

Got mine yesterday. Really great content. This one I'll keep.
Silvia H.

I read this magazine from cover to cover. Well-written, well-edited, relevant topics.
Heidi R.

Experience Life welcomes your comments and suggestions. Email experiencelife@experiencelife.com, connect with us on social media, or send feedback to:

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Changing Life Trends

Americans are living longer than in decades past — but are they healthier?

Meet the new average American man: He weighs 199.8 pounds and stands 5 feet 9 inches tall. The new average American woman weighs 170.8 pounds and is 5 feet 3.5 inches tall.

Since 1960, men have gained nearly an inch in height and women nearly half an inch, according to the latest Centers for Disease Control and Prevention statistics. (The CDC does not have or collect data on nonbinary persons.) The average man put on just over 10 pounds from 1999 to 2018 — and is more than 30 pounds heavier than he was in the 1960s.

The average woman added 7 pounds in the past 15 years and 30 pounds since the early 1970s. In other words, she now weighs about what the average man weighed in the 1960s.

Why? It's all about our changing diet.

More Calories

Americans are eating more than ever before. Exactly how much more is difficult to establish. For years, the U.S. Department of Agriculture (USDA) tried to measure caloric intake with regular surveys but eventually stopped providing complete data. Among other limitations, people tend to underreport what they eat.

Still, the USDA and the United Nations' Food and Agriculture Organization estimate that the average American consumes 18 to 24 percent more calories than in the 1960s and 1970s. This is due in part to a boom in meat consumption: The average American was expected to consume 224.6 pounds of red meat and poultry in 2022, compared with 138.2 pounds in the 1950s.

The average American consumes **18 to 24 percent more calories** than in the 1960s and 1970s.

At the same time, the average American now gets just 2.5 percent of daily calories from the healthiest foods — vegetables.

Our food itself has changed as well. Rather than home-cooked meals, 57.9 percent of our calories now come from ultraprocessed foods. These foods are also the main source of added sugar in our diets, and more sugar means more inflammation, weight gain, and health risks.

A recent National Institutes of Health trial found that eating processed foods for just two weeks resulted in 2 pounds of weight gain.

Longer Lives

Over the past two decades, several studies found that Americans were living longer than they had been 20 years previously. A 2013 *JAMA* report found that U.S. life expectancy in 1990 was 75.2 years; in 2010, 78.2.

That, too, has shifted, according to a 2022 *JAMA* investigation. The U.S. life expectancy *decreased* by 1.87 years in 2020 compared with 2019, led by 3.70 years in Hispanic populations and 3.22 years in non-Hispanic Black populations.

Other studies point to the COVID-19 pandemic as the culprit. The *JAMA* study, however, notes that other high-income countries did not experience a similar life-expectancy drop.

Though Americans as a whole are living longer, *JAMA* reports that the amount of time we spend with chronic disabilities has increased from 9.4 years in 1990 to 10.1 in 2010, the most recent year for which data is available. The primary contributors to these chronic disabilities include mental and behavioral disorders, musculoskeletal disorders, vision and hearing loss, anemias, and neurological disorders.

At the same time, medical research and development has improved treatment of the primary causes of premature mortality: cardiovascular diseases and cancer, strokes, depression, anxiety, back pain, and disorders of muscles, nerves, and joints.

— MICHAEL DREGNI

Making the Connection: The Pandemic & Altered Personalities

Because COVID-19 has upended so many facets of our lives over the past three years, it should come as no surprise that it has had a lasting impact on our personalities.

That's what Angelina Sutin, PhD, and her team of researchers concluded after analyzing personality assessments of some 7,100 participants in the Understanding America Study during the "acute" (2020) and "adaptation" (2021–2022) phases of the pandemic and comparing them with prepandemic appraisals.

Focusing on five personality traits (neuroticism, extroversion, openness, agreeableness, and conscientiousness) during COVID's spread, Sutin's team tracked behavioral changes to determine to what extent this stressful global event could alter a person's personality.

What they learned suggests people adapt at varying rates:

• Older adults reported feeling less neurotic (defined in the study as a tendency to experience negative emotions and vulnerability to stress) during the early phase of the pandemic before returning to prepandemic levels as the crisis wore on.

• Younger participants, on the other hand, reported increasing levels of neuroticism as time went on as well as declining levels of agreeableness and conscientiousness.

• Overall, study participants gradually became less agreeable, conscientious, extroverted, and open to new points of view.

> If these changes are enduring, this evidence suggests population-wide stressful events **can slightly bend the trajectory of personality, especially in younger adults."**

"Current evidence suggests the slight decrease in neuroticism early in the pandemic was short-lived, and detrimental changes in the other traits emerged over time," Sutin writes in the journal *PLOS ONE*. "If these changes are enduring, this evidence suggests population-wide stressful events can slightly bend the trajectory of personality, especially in younger adults."

It's during young adulthood that personality tends to develop and consolidate, eventually leading to "greater maturity in the form of declines in neuroticism and increases in agreeableness and conscientiousness," Sutin explains. "Over a year into the pandemic, however, young adults show the opposite of this development trend."

— CRAIG COX

In-Home Celiac Tests Have Arrived

When digestive distress strikes, it's natural to search for the culprit. Is it a food allergy? Or could it be an immune-system malfunction, like celiac disease?

A variety of in-home tests have been introduced recently, ostensibly to help pinpoint the problem. These are not currently diagnostic tools, but a positive result indicates you might have the disease; the next step would be to work with your healthcare provider for diagnosis.

Celiac is particularly challenging to diagnose: Its symptoms can vary widely, and the results of a finger-prick in-home blood test may not prove a reliable marker. "[It's] not always a one-step process," explains Mayo Clinic gastroenterologist Lucinda Harris, MD. "It is possible that you could still have celiac disease, even if the results of an initial blood test are normal."

In-home tests, which involve sending a few drops of blood to a lab, can provide a clue about your celiac status, but most experts agree that the results should not be considered conclusive.

Research on the efficacy of these tests is sparse, though the results of a recent small peer-reviewed study published in the journal *Clinical Chemistry and Laboratory Medicine* suggest that in-home assessments that measure multiple biomarkers may be more accurate than those screening for fewer antibodies. "These are the tests you should be asking for," says coauthor Jani Tuomi.

As with blood tests, those opting for in-home testing must remain on a gluten-containing diet for the most accurate results.

In any case, a blood test might not tell the whole story, Tuomi notes. "It can be useful to seek care from a physician who specializes in celiac disease to further investigate the cause of your symptoms."

— CC

Welcome to Weed Drinks

THC-infused beverages are the buzz. Marijuana is now legal in 21 states, giving rise to a new trend: adding tetrahydrocannabinol (THC) — the principal psychoactive element of cannabis — to beverages, including coffees, teas, mocktails, canned seltzers, spritzers, and alcohol-free ciders, beers, and wines.

So-called weed drinks have been gaining steam in the past two years. According to cannabis market-research firm Headset, THC-infused drinks now command 1.1 percent of the U.S. beverage market. And some experts project they'll reach $2.3 billion in global sales by 2027.

Weed drinks are marketed as "low calorie" and "natural," "a social buzz without the effects of alcohol," as well as "hangover-free."

But are they healthy — or even safe? It's too soon to know.

Research and testing have been slowed by government regulations. The U.S. Drug Enforcement Agency still classifies THC as a Schedule I drug, which requires researchers to register with the agency before conducting studies.

The average dose of THC in an edible is 5 mg, but companies are marketing drinks with as little as 2.5 mg and up to a powerful 100 mg per bottle.

That may mean little to most people until they've tried it, James MacKillop, PhD, director of the Michael G. DeGroote Centre for Medicinal Cannabis Research at Canada's McMaster University, tells the *New York Times*.

"If you tell someone this is an 8 percent beer, they say, 'That's a strong beer,'" MacKillop explains. "If you tell someone this is a 20-mg drink versus a 5-mg drink, that's Greek to many people."

— JAZZ WARD

Unhappy Feet:
Treating Plantar Fasciitis

The plantar fascia is the thick, rubber band–like tissue that connects our heels to the balls of our feet and toes, supporting our arches along the way. It acts as a shock absorber for our feet, and given the trials we put them through — standing, running, jumping, and more — it's no wonder it often gets sore.

One in 10 people suffers plantar fasciitis at some point, and more than 2 million are treated for it annually, according to the Cleveland Clinic. Also known as runner's heel, it's similar to tennis elbow and golfer's elbow as an all-too-common repetitive-stress injury.

One in 10 people suffers plantar fasciitis at some point, **and more than 2 million are treated for it annually.**

Ibuprofen can provide short-term relief from pain and inflammation, the Mayo Clinic notes. But to determine best practices for managing plantar fasciitis, physiotherapist Dylan Morrissey, PhD, at Queen Mary University of London, led an international team in a systematic review of 51 trials involving 4,351 participants. The results were published in *BMJ* in 2021.

The following treatments are among the most effective, and some don't even require a trip to the doctor's office:

• When you first start feeling pain, remedies include **taping** the foot for support and plantar-fascia **stretching** (often by pulling back on the ball of the foot as well as rolling out the arch). Over the longer term, stretching exercises were found to be less effective.

Other common treatments, such as calf stretching and applying wheatgrass cream, were deemed ineffective.

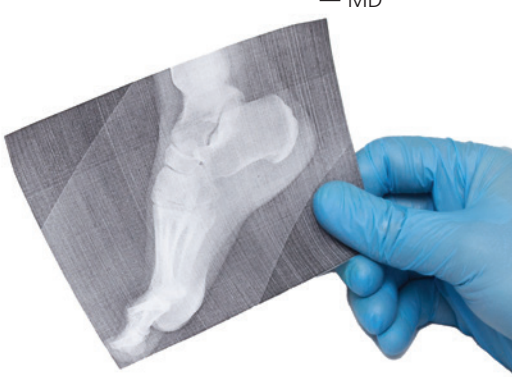
• The systematic analysis found trigger-point **dry needling** was not effective, but another 2021 study in Oxford's *Pain Medicine* suggests it may reduce pain, at least in the short term. Dry needling is a procedure that uses a thin needle to penetrate the skin and release myofascial trigger points.

• **Orthotics** often provide short-term relief. The team reported that custom-made orthotics are vastly superior to premade, store-bought, or magnetized insoles.

• For nonresolving, ongoing issues, **extracorporeal shock-wave therapy** has proven to be a promising medical intervention. It uses sound waves to reduce pain and promote healing.

While researchers studied several treatments, no single approach emerged as a silver bullet. As one physician quoted in the study put it: "The nature of the condition is that you need to be doing a range of things, but all together for a sustained period of time."

— MD



Learning and Growing From Trauma

One moment, Jamie Sukow was a typical 22-year-old pulling out of a parking lot; the next, she was trapped in a burning car. Debris punctured the fuel tank and the gas fumes ignited. As the flames grew, Sukow thought, *I guess this is how I'm going to die*. But an off-duty paramedic happened to pass by and freed her.

That day would not be her last. Instead, it was the beginning of what Sukow now considers a profound — and in many surprising ways, positive — turning point in her life.

But it took a while for her to see it that way.

Trauma and Its Aftermath

Sukow spent three weeks in the hospital with second-degree burns on her chest and face and third-degree burns on her arms, hands, and a leg.

Once she was discharged, there wasn't much for her to do. She initially couldn't drive, which meant she couldn't work. Visits from friends and family waned, and when Sukow did meet up with people, they'd often stare at her burned skin or avoid looking at her. It felt better just to isolate.

There was one exception — a burn-survivor support group, which for Sukow became a source of camaraderie and understanding.

Through it, she began to encounter posttraumatic growth.

The concept of posttraumatic growth (PTG) contends that people who struggle in the wake of trauma can also, in time, experience personal growth. These individuals may develop new understandings of themselves, their relationships, and what kind of life they want to lead moving forward.

PTG tends to emerge only after one has endured significant psychological struggle following a trauma — in fact, it's entirely possible to experience symptoms of PTSD in tandem with the growth.

Put another way, the growth can't happen without struggle.

A New View

"The first year [after the fire] was the hardest," Sukow recalls. Once she resumed driving, she could remain calm, but she would become shaky and panicked when attempting to park. And she realized that some friendships were not as solid as she'd assumed.

On the other hand, certain relationships proved stronger than she'd imagined. Sukow's then-boyfriend, now-husband, was one of these. "He encouraged me to embrace my scars rather than hide them."

With his support and that of the burn-survivor group, Sukow's confidence grew. She pushed herself to try, and possibly fail, rather than tell herself, *I can't do this anymore*.

She also began cultivating a different perspective on the accident. What had initially seemed like the worst thing that could ever happen became a reminder that worse things can happen.

Grounds for Growth

Whether one experiences PTG may depend in part on the type of trauma they endure. Interpersonal traumas, such as rape or assault, typically lead to more severe PTSD and depression than accidental traumas, such as a natural disaster, hindering the survivor's ability to transform negatives into positives.

Personal attributes may also play a role. PTG has been linked to both openness and extroversion. Openness enables an individual to reconsider their attitudes and beliefs (turning *Why me?* into *I'm so lucky I survived*, for example). Extroversion increases one's likelihood of seeking support.

> "Psychological flexibility" describes the ability to tolerate and even embrace our thoughts and feelings — **including the difficult ones.**

Also crucial to PTG is a willingness to engage with, rather than avoid, the spectrum of emotions accompanying trauma. "Psychological flexibility" describes the ability to tolerate and even embrace our thoughts and feelings — including the difficult ones. Research suggests that individuals who demonstrate high levels of such flexibility are more likely to report PTG.

None of this suggests we should wish for trauma or criticize those who do not reap positive change in its aftermath. Even among those who do, the process is a long and winding one.

Sukow's story is not one of happy endings so much as complicated transformations. It's also a reminder that growth doesn't happen without struggle — or, as Sukow puts it, "It has to get worse before it can get better." ◔

— ALEXANDRA SMITH, MA, LPCC

LEARN MORE

For a longer, more detailed version of this article, see **ELmag.com/trauma.**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Pack Healthy Snacks

This month's challenge aims to help you handle hunger pangs and afternoon energy slumps.

BY ***EXPERIENCE LIFE*** **STAFF**

WHY

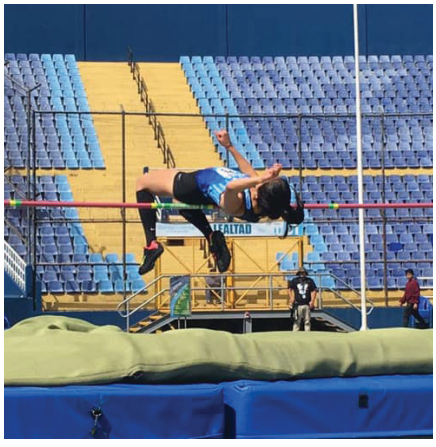
It can be difficult to find wholesome mini meals on the go, and ultra-processed vending-machine fare offers few quality nutrients. It can also spike your blood sugar and lead to energy crashes.

HOW

Plan, prepare, and pack snacks in a convenient carryall the night before. Choose whole foods with a balance of high-quality carbs, protein, and healthy fats.

TAKE ACTION

Need support or recipes? Find more ideas and habit-forming resources for this month's challenge at **ELmag.com/onehealthyhabit.**



From left: Julieta Cruz at a track-and-field competition in 2018; visiting Austin, Texas, in 2021.

Food, Freedom & Forgiveness

A young woman learns to forgive and care for herself while healing her relationship with food.

BY **JULIETA CRUZ**

Editor's Note: *This story includes potential triggers and details of coping with an eating disorder. If you or anyone you know is struggling with an eating disorder, free help is available from the National Eating Disorders Association: 1-800-931-2237.*

All I could think about was food. It was the fall of my sophomore year of college, and I could barely move from bed. My heartbeat was erratic. I struggled with fatigue and mood swings. I was lonely.

I'd spent nearly a year in a cycle in which a fear of food led to restricting my diet. I was often hungry and had intense cravings, which led to bingeing and purging, which led to shame.

One night, everything was still, but I felt a shift: I suddenly knew I had to change my relationship with food.

As an athlete, I was familiar with what it takes to strive toward new achievements. I realized I needed to approach recovery as I would a competition. The shift I felt was my body and mind turning toward a new goal.

Raised as an Athlete

I grew up in Guatemala and had been active and healthy my whole life. As a kid, I competed in tae kwon do. My mom was an excellent cook, and our meals included rice, seafood, and lots of vegetables and fruits.

Eventually, I decided that tae kwon do wasn't for me: I wanted a non-contact activity. I joined a track team when I was 13, and I was a natural.

Early on, I competed in multiple track-and-field events, but I excelled at high jump and long jump, so I dedicated myself to those events. At competitions, I consistently placed in the top three in the Central American and Caribbean regions. I even held the Guatemala national record in 2014.

After high school, I chose to attend college at Florida Tech, a school in Melbourne close to my extended family in Fort Lauderdale. I joined the track team my freshman year.

I had two training sessions per day — one for strength and one for running — and I'd leave practice hungry and ready to eat. Walking into the college dining hall, I'd feel like a kid in a candy store. There were burgers, fries, waffles, and other fast-food options — things I rarely ate as a child.

I'd never given much thought to what was on my plate at home because everything had been nutritious. In college, I continued to eat what was in front of me even though the food was vastly different. Not only was I eating more fried and processed foods, but I had no concept of portions.

I'd been lean and fit my whole life, and I was as active as ever. Despite how much my diet changed, I never worried about my weight.

A Revealing Reunion

In December 2017, I traveled to Nicaragua to compete with the Guatemalan national team. When I met up with my old teammates, they were shocked. Someone commented, "You have chubby cheeks now!" My coach said, "Girl, your legs are twice their size. What have you been eating?"

I weighed myself and I realized I'd gained weight, and people had noticed. Making matters worse, I performed poorly at the track meet. I wasn't even close to my personal high-jump record.

Now, I understand that weight fluctuation is common during big life changes, like moving or starting college, and that it isn't bad or a personal failure. But that's not how I saw it then. After the competition, I became self-conscious about my physique. I felt compelled to lose weight immediately. Food became my enemy.

The Binge-and-Purge Cycle

I tried restricting my diet, but I couldn't resist temptation. So, I started overexercising. I craved the foods I tried to restrict, especially sugar. That's when I started bingeing and purging. By March 2018 my weight was back to what it had been before college, but I wasn't satisfied.

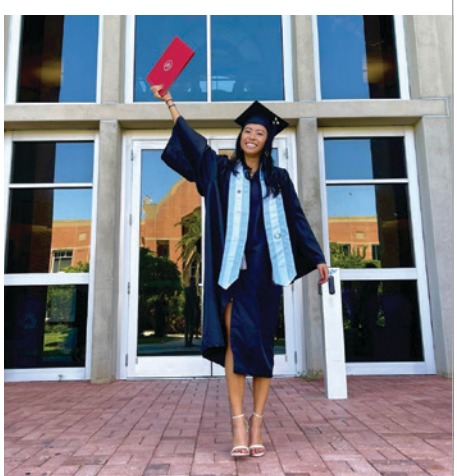
I also began isolating. Friends would invite me out to eat, but I was embarrassed to eat in front of people because I felt like I couldn't control myself around food. A slice of pizza would turn into six.

My lowest point came after researching the consequences of purging, which can include decayed teeth and heart problems. What I read destroyed me, because I'd already noticed some of these effects, including arrhythmia.

When I returned to Guatemala for the summer, I was thinner than I'd been in years. My family noticed, but they didn't realize I had an eating disorder. Despite having access to my mom's healthy, fresh meals, I continued to see food as bad. Whatever went in, had to come out.

Jumping Into Recovery

After returning to school that fall, I considered seeing a counselor, but I was too embarrassed. Meanwhile, I was also reeling from Florida Tech's decision that summer to discontinue its track program.



Over the next few months, however, I learned how to employ my athletic mindset to support my recovery. It was just like training for a new personal record: I needed to train my brain to achieve my goal of healing from my eating disorder.

The first step was accepting what I'd done. I'd spent over a year purging and being ungrateful for the food available to me, and I felt guilty. I needed to forgive myself in order to heal.

Early in recovery, I purged once a week. Then once every two weeks. I didn't want to break momentum, but I offered myself compassion when I took a step back. I went three weeks, then a month, then two months. I still weighed myself and fought the impulse to purge, but I focused on forgiveness.

Forgiving myself allowed me to be flexible in a way that bingeing and purging never had. When I was in the midst of disordered eating, I was striving for perfection, so I could never be satisfied. The goal was always out of reach.

But when I embraced forgiveness, I accepted that I made (and will continue to make) mistakes. Slipping up didn't mean I could never succeed. I could accept my mistakes without judging or punishing myself.

That self-compassion led to the next step. I stopped weighing myself and classifying foods as good or bad. I focused on nourishing my body, and I didn't panic when I gained weight. I understood that my body was restoring itself.

Moving Forward

By the end of 2020, I found equilibrium. Once I stopped depriving myself, I stopped craving. I enjoyed food as nourishment. I chose food I grew up on in Guatemala, which included lots of fruits and vegetables. Most important, I saw who I was beyond the scale's numbers; I valued myself as a whole person again.

I graduated in 2021 with a degree in biomedical engineering. I still live an active lifestyle and run most mornings before work. I also recently found the courage to start therapy, which helps in all aspects of my life.

Today, rather than being obsessed with food, I'm grateful to say that my mind is occupied with goals and a bright vision for my future. ◔

Julieta's Top 3 Success Strategies

1

FORGIVE YOURSELF. "You can't move on if you dwell on your downfalls," says Julieta. Identify whom you want to be, and then act in a way that aligns with that identity.

2

GET HELP. Julieta didn't see a counselor during her recovery, but she wishes she had. "Even though I was self-aware and motivated to take care of my future self, having support would have taken a huge load off."

3

JOURNAL. "Keep track of your progress and emotions," she advises. Doing so can help you evaluate your progress and make adjustments. "I always consider gratitude," she adds.

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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Real Fitness

Are your workouts feeling stale? Do you want to renew your love of exercise?

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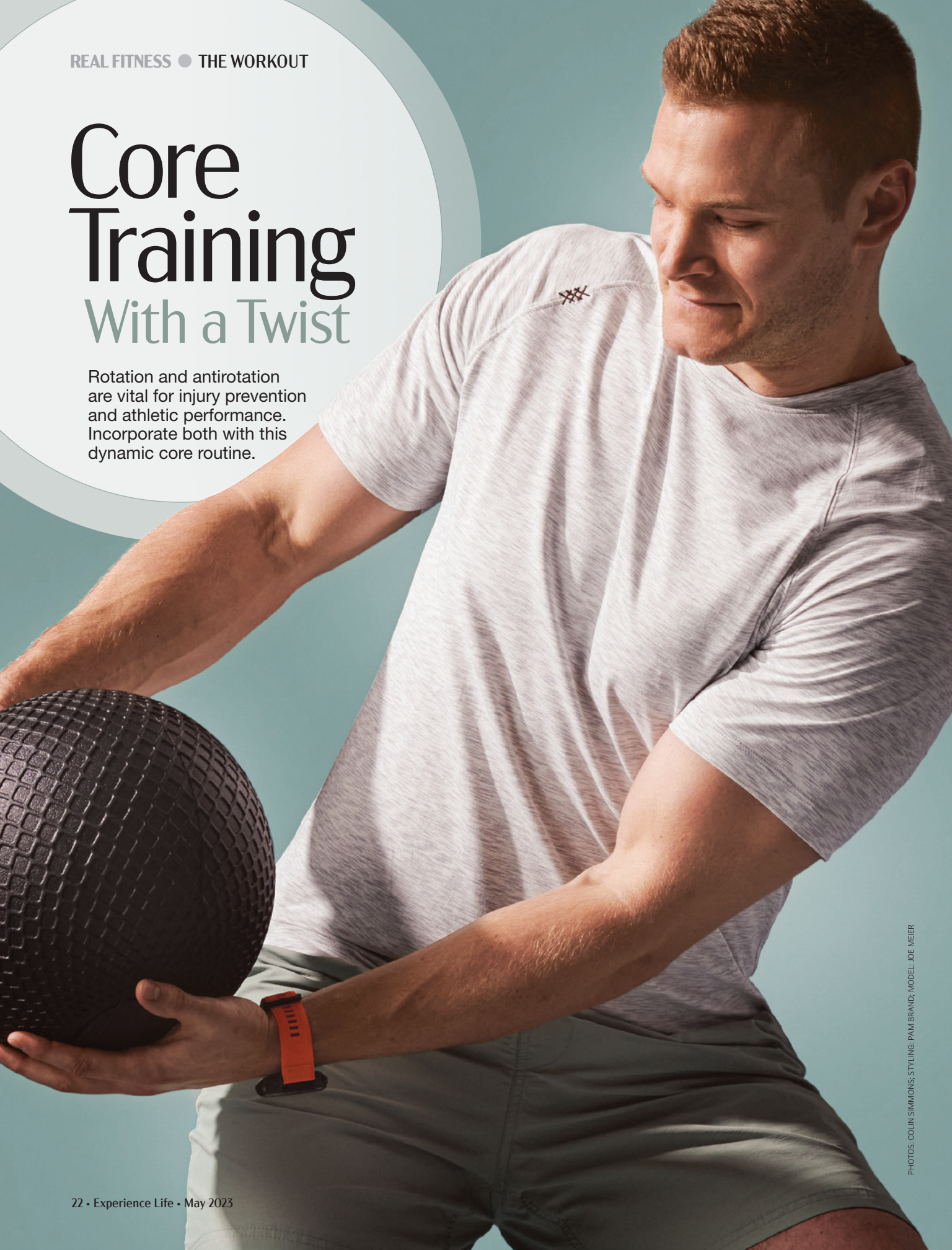
Joining forces with a personal trainer can recharge your drive. Learn how to find the right PT for you — and start making meaningful fitness progress as a team.

Core Training With a Twist

Rotation and antirotation are vital for injury prevention and athletic performance. Incorporate both with this dynamic core routine.



PHOTOS: COLIN SIMMONS; STYLING: PAM BRAND; MODEL: JOE MEIER

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

To rotate or not to rotate? You may have asked yourself this question while training. But building a strong and stable core that can move dynamically isn't an either-or scenario. Both rotation and antirotation are vital for preventing injury and improving athletic performance, making it important to incorporate both, not just one or the other, into your training.

Rotational movements build strength, power, and explosiveness by following a twisting range of motion, explains Life Time master trainer Joe Meier, CSCS.

"Most common core exercises are performed statically (such as most plank variations) or in the sagittal plane lying on our backs (think crunches, bicycles, leg raises, and sit-ups)," he says. "But many daily movements and lifelong hobbies — from opening a door to playing sports like golf or pickleball — require that we rotate through the transverse plane. Including rotational work in our training not only makes those activities easier to perform, but we're less likely to hurt ourselves."

Antirotational exercises train us to stay aligned and stable while resisting an outside force — the twist of rotation.

"Antirotation allows us to train our ability to brace ourselves, which has two major benefits," Meier says. "First, the ability to resist rotation can help prevent lower-back injuries, something that affects most people at some point in their lives. Second, the ability to stabilize the midsection allows us to efficiently transfer power from our lower body to our upper body, something that happens every time we swing a racquet or golf club or open a door."

Many people would benefit from incorporating both rotation and antirotation into their training, he adds. (Caveat: Folks coping with a back injury may want to avoid transverse movements. Check with your healthcare practitioner if you aren't sure.)

For beginners, people recovering from an injury, or exercisers who "feel a tweak" every time they do a twisting motion, Meier advises spending more time on antirotational training from the outset. Specifically, he considers the Pallof press to be a foundational staple for all his clients.

"I typically start everyone with a Pallof press first to see if they can 'feel' the correct core musculature stabilizing," he says.

In this workout, Meier shares his favorite rotational and antirotational moves — including three Pallof-press variations. While you can perform the moves together as a standalone workout, you can also choose a few to incorporate into an existing routine.

Rotational and antirotational core moves pair well with upper- and lower-body strength exercises for a superset. Just be cautious about overdoing a good thing, Meier warns.

"You don't need five rotational exercises in the same workout," especially if you're a beginning exerciser or new to transverse-core training.

Both rotation and antirotation are vital for preventing injury and improving athletic performance, **making it important to incorporate both, not just one or the other.**

GET THE DETAILS

For full exercise instructions, visit **ELmag.com/twist.**

SAFETY TIPS

Rotational exercises are important, and *how* you do them is even more important. Protect your lower back by following these rules:

- Maintain a neutral spine — neither arched nor rounded.
- If your upper back and hips are tight, increase your comfort and range of motion by turning your toes outward up to 45 degrees.
- Keep your core muscles engaged; this helps stabilize your lumbar region.
- Rotate from your thoracic spine (the upper and middle back) and hips.

Because **antirotational exercises** are inherently designed to *resist* movement through the core (including the hips, abdominals, and back), the only safety tip for them is to do precisely that: Keep the core stable.

Do the Twist

MEDICINE-BALL THROW

While holding a medicine ball, assume an athletic stance with the left side of your body a few steps from and facing a wall. Inhale as you rotate away from the wall, shifting your weight to the right and moving the ball toward the outside of your right hip.

Exhale as you rotate and shift your weight to the left, and throw the ball with force against the wall.

On an inhale, catch the ball and immediately rotate to the right to repeat the sequence.

Perform six to eight reps per side for two sets.

CABLE CHOP

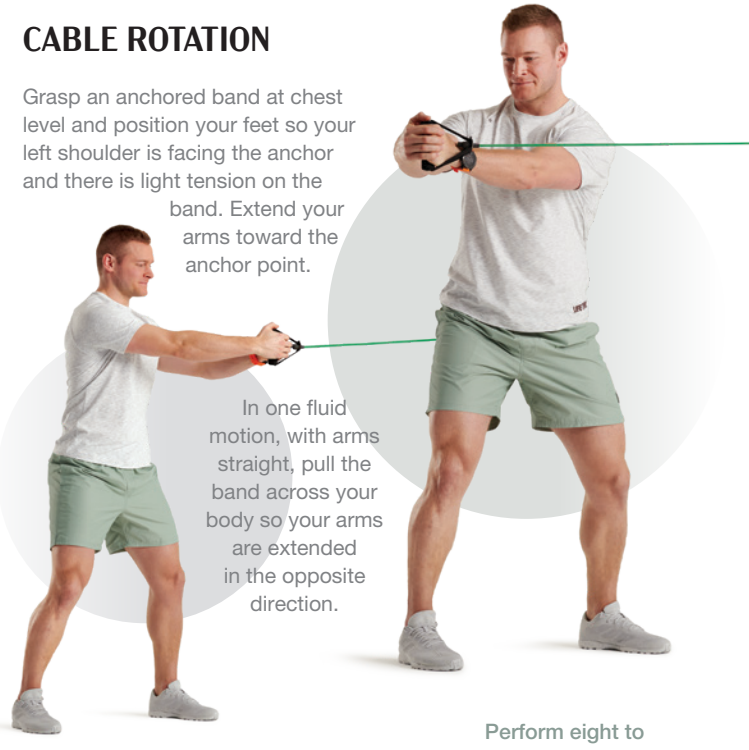
Grasp an anchored band above shoulder level and position your feet so your left shoulder is facing the anchor and there is light tension on the band. Extend your arms diagonally over your left shoulder.

Reverse the motion with straight arms to return to the starting position.

In one fluid motion, with arms straight, perform a downward chopping motion toward your right hip.

Perform eight to 12 reps per side for two sets.

CABLE ROTATION



Grasp an anchored band at chest level and position your feet so your left shoulder is facing the anchor and there is light tension on the band. Extend your arms toward the anchor point.

In one fluid motion, with arms straight, pull the band across your body so your arms are extended in the opposite direction.

Reverse the motion with straight arms to return to the starting position.

Perform eight to 12 reps per side for two sets.

Resist the Twist

PALLOF PRESS

Grasp an anchored band at chest level and position your feet so your left shoulder is facing the anchor and there is light tension on the band.

With control, extend your arms to press the band away from your chest, then bend your elbows to return to the starting position.

Perform four to 12 reps per side for two sets.

PALLOF PRESS WITH OVERHEAD RAISE

Perform a Pallof press, and each time your arms are extended in front of your chest, raise your hands overhead.

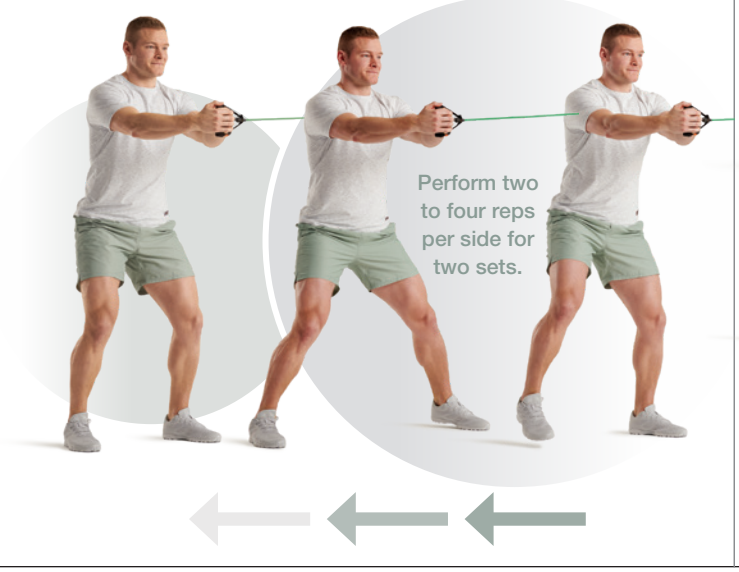
Lower with straight arms, then bend your elbows to return to the starting position.

Perform four to eight reps per side for two sets.

PALLOF PRESS WITH LATERAL STEP

Perform a Pallof press, and each time your arms are extended, take three or four small steps away from the anchor point.

Reverse the direction of your steps, keeping arms straight, then bend your elbows to return to the starting position.



Perform two to four reps per side for two sets.

PLANK WITH ALTERNATING LEG RAISE

While holding a plank position, raise one foot so your leg hovers at about hip height.

Don't let your back arch, your hips pike up, or your body twist as you alternate legs.

Perform four to 12 reps per side for two sets.

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

Partners in Fitness

Working with a personal trainer can transform your health-and-fitness efforts. Find the right one to work with — and make some fitness progress as a team.

BY **NICOLE RADZISZEWSKI**

A personal trainer can help you tackle your fitness goals efficiently and effectively. But finding the right person for the job can be overwhelming. Not only is it important to find someone knowledgeable, but a great client–trainer relationship is also about finding a good personality match.

"When it comes to personal trainers, what differentiates the best from the rest is understanding behavior modification and having the ability to actually get people to do the things you're putting together for them," says Jason Stella, NASM, PES, CES, Life Time's national education manager. "It's about meeting the client where they're at — the art of sneaking in what they need while giving them what they want so they come to enjoy the experience."

Credentials are undoubtedly important, but a lineup of letters after someone's name isn't everything. Experience, trust, respect, amiability, and shared values are other factors that elevate a coach from simply a fitness-floor boss to a valued guide who can effectively motivate you to push yourself toward your potential.

Likewise, a trainer with an impressive Instagram presence and celebrity clients — or even someone who trains your best friend or partner — isn't necessarily going to be the right fit for you.

"The best trainers are the ones with a model of consistency behind their name — the ones whose clients

are sticking around and getting results," says Lee Boyce, a Toronto-based strength coach.

Stella and Boyce offer some tips for finding the right trainer for you.

Know What You Want

Deciding whether you want to pursue in-person, remote, or hybrid training is a good first step when seeking a trainer. Do you prefer the motivation of working out in a shared space, or do you want privacy? Are you looking to get out of your house, or would the convenience of remote or at-home training help you maintain a consistent regimen?

Then consider your experience level: Are you a new exerciser who needs support to learn good form? Or do you simply want a program to follow and accountability?

"If you're not a beginner, you can go to town with online programming," Boyce says. "But if you need to learn what a deadlift is or what a squat is, you'll be best with an in-person coach first."

Prioritize Program Design

Prefabricated programs have their place — particularly if the cost of one-on-one training is prohibitive — but working directly with a coach means the program will be tailored to you. "A trainer can put together a program oriented toward linear progression and help you implement it long-term," says Boyce.

A solid training program includes not only workouts on the days you meet with your trainer but also a plan for the days you're on your own. This plan may comprise additional workouts, recovery days, stretching and mobility exercises, and even lifestyle suggestions. You can ask prospective trainers what types of programs they provide, and request a sample routine to determine whether it meets your needs.

Think about the big picture when comparing trainers and the cost of their sessions, says Stella. "Instead of thinking only about the cost per hour, consider: *Here's a program that's going to get me to my goals.*"

Find Your Unicorn

Any trainer should be able to personalize a program based on your training history, goals, and abilities, and modify exercises when necessary. Beyond this baseline, the modern fitness landscape includes plenty of specialists who can support you through circumstances like injury recovery, pregnancy, and beyond.

There are coaches who specialize in trauma-informed movement. Adaptive trainers work with athletes living with disabilities. Some trainers and spaces honor LGBTQIA+ populations or people of a particular heritage or cultural background. Multilingual trainers abound. The list goes on.

It's about meeting the client where they're at — the art of sneaking in what they need while giving them what they want so they come to enjoy the experience."

If you think you may benefit from a trainer who holds additional credentials and certifications, don't be shy about seeking them out. Stella recommends asking for personal-trainer referrals from other health-and-wellness experts in your network.

Trust Your Gut

"Soft skills hold more weight to people than meets the eye," notes Boyce, referring to nontechnical skills, like the ability to communicate clearly, maintain a positive attitude, and manage emotions. A trainer can be well educated and their clients can get great results, but they might not be the best fit for you from a personality perspective.

If you can tell from the get-go that you and a trainer just don't click, it's OK to switch to someone else. One thing a trainer should never do is berate clients or make them feel uncomfortable, so if this is the case, terminate the relationship right away.

NICOLE RADZISZEWSKI is a writer and personal trainer in River Forest, Ill.

MAKE THE MOST OF YOUR WORKOUTS

Working with a fitness coach is a relationship, and the effort you put in influences what you'll get out of the experience. Our experts offer these tips to maximize your training experience.

- **SHOW UP ON TIME AND BE READY TO WORK.** The first step toward any goal is simply showing up. Doing so in a timely fashion and with the right mindset not only sets you up for success, but also shows that you respect your personal trainer and the process.
- **DO YOUR HOMEWORK.** Results come not just from one or two training sessions a week, but from all the things you do on your own, including sleep, nutrition, mobility work, and additional workouts, says Life Time's national education manager Jason Stella.
- **BE CURIOUS.** "Asking questions gives a client the power of having knowledge, so eventually they can train more on their own," says strength coach Lee Boyce.
- **TRUST THE PROCESS.** Not all exercises are flashy and fun, and progress doesn't always mean adding more weight to the bar, says Boyce. "Variety might keep you from getting bored, but trainers also have to make sure their client is proficient in fundamental movement."

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The Donkey Kick

Build strength and stability with this low-impact lower-body move.

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

PHOTOS: KELLY LOVERUD; STYLING: PAM BRAND; MODEL: HOLLY DALBEC

The donkey kick is a staple gym exercise for goals as varied as rehabbing weak hips, building lumbo-pelvic stability, or growing a bigger booty. In addition to the glute muscles of the working leg, this low-impact move also engages the shoulders, core, and muscles of the supporting leg. The donkey kick helps build balance, coordination, and spatial awareness, too.

Aim to avoid these common pitfalls:

Reaching your toes to the ceiling. A higher lift doesn't produce better results — it can disengage the glutes and set you up to arch your back and tilt your hips.

Disengaging your base. Press actively through your hands and feet. Engage your abs to maintain a flat back. Engage your base-side hip to make sure it remains over the knee.

Moving too quickly. Donkey kicks are all about engagement, so move slowly and with control.

Adding too much weight. Donkey kicks are commonly done with just body weight, but the move can be progressed by using ankle weights, a resistance band, or a cable machine. Be sure to master good form first, and don't add so much weight that your form breaks down.

INSTRUCTIONS

1. **Assume** an all-fours position, with your wrists under your shoulders, your knees under your hips, and your neck in a neutral position.
2. **Engage** your core to keep your back flat and parallel to the floor; actively press through your hands and feet.
3. **Keep** your knee bent at 90 degrees and flex your foot, then lift one leg until your thigh is about parallel to the floor.
4. **Pause** briefly at the top of the movement, then lower. Perform 15 to 20 reps, then switch sides.

MIX IT UP

For a back-friendly alternative, plus three ways to add resistance, visit **ELmag.com/donkeykick.**

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

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WELLA

From Antiaging to Proaging

As she approaches a milestone birthday, our fitness editor considers her motivation to keep moving.

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

"What are you training for?"

During my past three decades as a fitness enthusiast, my goals and motivations to exercise have varied widely. I've trained for aesthetics, for performance, and for health. I've trained in pursuit of joy, self-expression, and self-acceptance. I've trained as a matter of day-to-day habit and hygiene, moving my body in order to hold on to the ability to move.

My strength coach knows me well enough to understand that my reasons shift, and he routinely checks in to see where my head and heart are at. Even if my answer doesn't have a major impact on programming, it feels good to articulate why I'm doing something, if only to avoid going through the motions without a sense of purpose.

Recently, as I was transitioning from one training cycle to another, he asked me what I was training for next — what my goals were, what I found motivating right then. In other words, he wanted to know my *why*, the big-picture reason that keeps me showing up for my workouts and myself.

"Antiaging," I said.

At the time, I'd been steeped in research and interviews on fitness and aging for my work at *Experience Life*; all the information busted the myth that fitness, exercise, and sport are only for the young.

The resounding message from experts and athletes was that aging is not a downhill sprint punctuated by sedentariness, diminished muscle mass, low bone density, and the like. The people we've talked to and the science we've cited all insist that exercise — especially weight-bearing activity *and* activities that you enjoy enough to do consistently — will keep you healthier and more mobile than if you skipped it. In other words: Exercise keeps you young. (Learn more about the lifelong benefits of fitness at ELmag.com/fitforlife.)

When my coach prodded me to explain what I meant by antiaging, I pointed to the experts and said that I wanted to preserve as much mobility and physical function as possible, in a way that was sustainable. I wanted to make myself resilient in the face of injuries, keep up with all the activities I enjoy, and let exercise work its magic on all the systems of my body. (Read more about the many ways movement benefits your whole body at ELmag.com/move.)

My coach promised that wasn't too tall an order. After all, I was only 39.

Never too early to start, I thought, considering the ways my body had changed in my 30s. On the one hand, I'd grown stronger, fitter, and healthier than ever. But I could feel the effects of living life. The time under tension had built up over the years.

Now, approaching 40, cool-downs, rest days, and other tenets of active recovery are nonnegotiable if I want to avoid pain, injury, and fatigue that could ruin not only my next workout but my quality of life.

With this in mind, I want to get ahead of other "age-related" issues before they arise. As the adage goes, an ounce of prevention is worth a pound of cure.

Still, something about my answer rubbed me the wrong way: the wording. *Antiaging.* I was struck by how pejorative it sounded, how scornful. My thoughts roiled. *I'm not against aging,* I reminded myself. *I want to age — getting older is the goal!* I considered my words, wondered if I could do better.

It may seem like a small difference that has nothing to do with working out, but I've learned — many times over — that the way I speak to myself, and the stories I tell about myself, matter. Being careful and considerate with my word choice carries over into how sustainable, and therefore effective, a workout routine is.

With some thought, I realized that what I really want is a sense of agency over how I will spend the coming years. I don't need exercise to keep me young, because I don't want to be young forever. Rather than viewing fitness as a fountain of youth, I yearned to change my perspective to view it as a tool — one of many — to live my life to the fullest.

When this piece of writing lands in mailboxes, I'll be two months away from turning 40. Not young, as many people would define it. Not old, either. Forty is just me, as I am, right now. I hope I can hold on to the feeling that I'm OK with that — more than OK, really — for many years to come.

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

SWITCH GEARS NOT SHOES

GO FROM STREET TO STUDIO IN THE SOLIMAR

HOKA

FLY HUMAN FLY

Real Food

Grain bowls are like a blank canvas — offering a flexible template that allows you to easily mix and match by adding or subtracting ingredients to fit your mood, your nutritional needs, and the season.

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Find our recipe for the Broccoli Salad With Herby Tahini Dressing seen here at ELmag.com/veggiegrainbowls.

Fresh Spring Rolls, 3 Ways

These tasty rolls are surprisingly simple to make at home — and easy to fill with plenty of seasonal produce.

BY **MADDIE AUGUSTIN**

Many cuisines throughout East and Southeast Asia have a version of a spring roll: some variety of vegetable or meat fillings rolled up in a flour or rice wrapper.

In China, fried cylindrical pastries filled with spring vegetables are a popular dim sum option often associated with Chinese New Year. In the Philippines, spring rolls are called *lumpia* and typically filled with mixed vegetables and shrimp or pork.

The fresh versions here most closely resemble Vietnamese spring rolls, which are typically made with rice-paper wrappers and rolled around vermicelli rice noodles, vegetables, fresh herbs, and protein, such as tofu, pork, or shrimp. They go by many different names, including salad rolls, summer rolls, rice-paper rolls, or fresh spring rolls.

Whatever you call them, they're healthy, colorful, and packed with veggies. Try one of these recipes to get rolling.

Rainbow Spring Rolls

Makes six servings
Prep time: 30 minutes active, plus one hour inactive for pickling

ROLLS

- ⅓ cup each cold water, white vinegar, and honey
- ½ tsp. sea salt
- 5 small radishes, thinly sliced
- 6 rice-paper wrappers
- 12 large leaves butter lettuce
- 2 ripe avocados, sliced
- 1½ cups shredded red cabbage
- 1 large carrot, julienned
- 1 large yellow pepper, julienned

PEANUT SAUCE

- 2 cloves garlic, minced
- Juice from ½ lime
- ¼ cup water
- ¼ cup smooth peanut butter
- 2 tbs. honey
- 1 tbs. sriracha
- 1 tbs. soy sauce, tamari, or coconut aminos
- 1 tsp. toasted sesame oil
- ½ tsp. minced fresh ginger

GARNISHES (OPTIONAL)

- Black sesame seeds
- Fresh cilantro
- Sliced Fresno pepper

Prepare pickled radishes. Add the water, vinegar, honey, and salt to a small bowl and whisk to combine. Add the radishes and stir to submerge. Set aside for at least one hour (or up to one day in the fridge) before assembling your spring rolls.

Prepare peanut sauce. In a small bowl, combine the sauce ingredients and whisk until smooth. Add garnishes if desired.

Prepare your assembly line. Fill a shallow bowl with hot water and place it by your veggies. Dampen a large cutting board.

Assemble rolls. Submerge a rice-paper wrapper in water for two or three seconds, then place the wrapper on the cutting board, taking care not to fold it. Lay two lettuce leaves in the center. Add several pickled radish slices, a few slices of avocado, ¼ cup of shredded cabbage, and several carrot and bell-pepper sticks. Fold the sides of the wrapper over the filling and roll tightly from the bottom, pressing down gently as you go.

Place the roll seam side down on a serving dish. Repeat with the remaining rolls. Enjoy immediately with the peanut sauce.

Basil Rolls With Crispy Tofu

Makes six servings
Prep time: 40 minutes

BLACK VINEGAR DIPPING SAUCE

- 1 tbs. soy sauce, tamari, or coconut aminos
- 1 tbs. Chinese black vinegar (or rice vinegar)
- 1 tsp. toasted sesame oil
- Sesame seeds to garnish (optional)

CRISPY TOFU

- 1 block firm tofu, drained
- ½ tsp. sea salt
- 2 tsp. sesame oil
- 1 tsp. avocado oil
- 2 tbs. soy sauce
- 2 tbs. honey
- 2 cloves garlic, minced

ROLLS

- 6 rice-paper wrappers
- ⅓ cup each basil, cilantro, and mint leaves
- 2 red bell peppers, julienned
- 2 cups shredded green cabbage

Prepare dipping sauce. In a small bowl, whisk the soy sauce, Chinese black vinegar, and sesame oil until combined. Garnish with sesame seeds if desired.

Prepare tofu. Slice the tofu into small slabs and sprinkle the cut sides with the sea salt. Set aside for five minutes. Pat dry.

Meanwhile, preheat a large skillet to medium-high heat and add the oils. Sear each side of the tofu slabs for three to four minutes, until lightly crispy. While the tofu cooks, whisk together the soy sauce, honey, and garlic. Once the tofu is crispy, add the soy sauce mixture to the pan and simmer for one to two minutes. Remove tofu and set aside.

Prepare your assembly line. Fill a shallow bowl with hot water and place it by your veggies. Dampen a large cutting board.

Assemble rolls. Submerge a rice-paper wrapper in water for two or three seconds, then place the wrapper on the cutting board, taking care not to fold it. Add several leaves of each herb to the center. Add some sticks of bell pepper, ⅓ cup of cabbage, and one or two slabs of tofu. Fold the sides of the wrapper over the filling and roll tightly from the bottom, pressing down gently as you go.

Place the roll seam side down on a serving dish. Repeat with the remaining rolls. Enjoy immediately with the dipping sauce.

Spring Roll in a Bowl

Makes four servings • Prep time: 40 minutes active, plus one hour inactive for pickling

SWEET PICKLED CUCUMBERS

- 2 tsp. sesame oil
- 2 tsp. rice vinegar
- ½ tbs. honey or raw cane sugar
- 1 tsp. soy sauce, tamari, or coconut aminos
- 3 mini cucumbers, thinly sliced

NOODLES

- 2 cloves garlic, minced
- 1 tbs. rice vinegar
- 2 tbs. honey
- 2 tbs. lime juice
- 1 tbs. toasted sesame oil
- 1 tsp. fish sauce
- 1 8.8-oz. package vermicelli noodles

TOPPINGS

- 1 tsp. each avocado and sesame oil
- 1 lb. boneless, skinless chicken thighs
- Sea salt and freshly ground black pepper, to taste
- ½ cup mayonnaise
- 2 tbs. sriracha
- 4 scallions, sliced
- 1 bunch mint
- 1 cup shelled edamame
- 1 cup sliced radishes
- ¾ cup shredded carrots
- ½ cup peanuts

Prepare pickled cucumbers. In a bowl, whisk together the sesame oil, rice vinegar, honey, and soy sauce. Add the cucumbers and toss to coat. Set aside for at least one hour (or up to one day in the fridge) before assembling.

Bring a large pot of water to a boil. While the water is heating, make a dressing: Whisk together the garlic, rice vinegar, honey, lime juice, sesame oil, and fish sauce. Once the water is boiling, add the vermicelli noodles and cook according to package directions. Strain and rinse the noodles with cold water. Toss with the dressing and set aside.

Preheat a skillet over medium-high heat. Pat the chicken thighs dry with paper towels and generously season with salt and pepper. Add the oils to the hot pan and sear the chicken thighs for five to seven minutes per side, or until golden brown and cooked through to 165 degrees F internally. Remove from heat and set aside to rest for 10 minutes before chopping into bite-sized pieces.

In a small bowl, whisk together the mayonnaise and sriracha.

Divide the noodles into four bowls. Let people assemble their own bowls with their preferred combination of chicken, pickled cucumbers, scallions, mint, edamame, radishes, and carrots. Top with peanuts and spicy mayo. Enjoy immediately or chill and eat within four days.

MADDIE AUGUSTIN is a Minneapolis-based recipe developer.

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Your Natural Mental Health Kit

Five nutritional supplements that can help you build a solid foundation for mood and mental well-being.

BY **ALEXANDRA SMITH, MA, LPCC**

ILLUSTRATIONS: LYDIA ANDERSON

If you're anything like me, your kitchen and medicine cabinets probably contain several nutritional supplements. Perhaps you stock vitamin C to treat colds, or a daily multivitamin to avoid catching them. You might have fish oil to manage inflammation or magnesium to soothe your muscles.

Still, you might not know that many nutrients are just as essential to mental health as they are to physical well-being. A growing body of research suggests that sustained mental wellness may remain out of reach when our nutritional status is compromised.

In part that's because the brain is a hungry organ. It constitutes about 2 percent of our body weight, but it devours between 20 and 40 percent of the nutrients and calories we consume. What we eat and drink determines how well our brains function — and, by extension, how well we do.

Our nutrient status influences more than just mood. It affects how we process information, as well as how we react to and recover from stressors. Inflammation, gut health, and adrenal functioning all play a role in cognitive and emotional performance, and all are affected by nutrition.

Ideally, we would get all the nutrients we need for a healthy brain from our food, but this can be tricky. When we're struggling with mental health issues, maintaining a healthy diet can be challenging. And while it's no surprise that ultraprocessed foods won't provide the micronutrients our brains crave, even those who manage to load up on fresh vegetables and whole grains may suffer deficiencies, because modern agricultural practices have depleted many essential nutrients from the soil.

Whatever its cause, a nutrient deficiency can be one reason a mental health condition doesn't respond to other forms of treatment — and supplements may be the missing link.

"I see supplemental nutrients as a safe and gentle bridge to wellness," says integrative psychiatrist Henry Emmons, MD, author of *The Chemistry of Joy* and *The Chemistry of Calm*.

He considers certain supplements daily essentials for mental health; others work best as a temporary support. "Supplements can elevate people to a healthy baseline so that they have the energy, motivation, and mental and emotional stability to commit to long-term lifestyle changes, including diet."

Functional nutritionist Jesse Haas, CNS, LN, also includes supplements and herbal remedies whenever she's addressing a client's mental health struggles. When used in concert with other self-care practices, she says, "herbs and supplements can really accelerate the healing journey."

Neither Haas nor Emmons suggests clients toss out their prescription drugs or cancel therapy sessions. They advocate for a both/and approach, noting that micronutrients typically complement, rather than replace, other forms of treatment. Supplements can compensate for nutrient deficiencies caused by medication use, and some may even boost the efficacy of certain medications.

Key Supplements for Mental Health

What follows is a roundup of supplements that support mental health. For the best results, Haas and Emmons both recommend doing lab testing with a healthcare provider to identify deficiencies if you can afford it.

Most of these nutrients can be screened with a blood test, with a few exceptions: A stool test is required to assess the status of the microbiome, and selenium and zinc deficiencies are detected through hair analysis. (Zinc can also be measured with blood-plasma or urine tests.)

A provider can help determine appropriate doses, especially if you're taking pharmaceuticals. Know that we all have different requirements based on health status, genetics, and lifestyle.

B Vitamins

A B-complex supplement is "the most overlooked, inexpensive, and benign treatment there is," write Bonnie J. Kaplan, PhD, and Julia J. Rucklidge, PhD, in *The Better Brain: Overcome Anxiety, Combat Depression, and Reduce ADHD and Stress with Nutrition.*

When stress is elevated, the sympathetic nervous system activates a range of protective responses, including spikes in blood sugar and adrenal hormones like cortisol. Ongoing stress leads to chronic adrenal activation, exhausting the stress-response system and often leading to low mood; Bs can help regulate this response and prevent burnout.

Bs also play a key role in the methylation cycle, which is how the body produces and sustains protein and DNA. The methylation process facilitates DNA repair, detoxification, hormone regulation, and the production of several neurotransmitters, including serotonin and dopamine. Without sufficient B vitamins, especially B9 (known as folate) or folic acid (synthetic folate), those sleep-, mood-, and energy-regulating neurotransmitters can't do their jobs.

Some people have a polymorphism in the gene MTHFR that impedes folate processing; this often corresponds to depressive tendencies. For those who can't convert folate into a usable form, Emmons recommends an "activated" B supplement in which folate is easier for the body to access. (Find out more about B vitamins and mental health at ELmag.com/bvitamins.)

HOW TO SUPPLEMENT: For general mental health support, a B-complex supplement is best; it will

contain some or all of the B vitamins necessary for a good baseline. These supplements may cause upset stomach, so take them with food. Look for a complex that contains the following:

- **B6:** The recommended dietary allowance is between 1.3 and 1.7 milligrams (mg). (If you're over 50, seek 1.5 mg or more.)
- **B9:** You want at least 400 micrograms (mcg) per day. If you're pregnant, or if you consume more than one alcoholic drink a day (alcohol can impair absorption), aim for 600 mcg.
- **B12:** Take around 2.4 mcg.

Note: If you choose an activated B-complex supplement and begin to feel jittery, reduce the dose or discontinue.

Omega-3 Fatty Acids

These anti-inflammatory fatty acids are critical to brain health throughout our lives. During pregnancy, omega-3s help foster fetal brain development, contributing to neurotransmitter signaling and the growth of nervous tissue. In adults, omega-3 deficiencies are linked to a range of mental health issues, including depression, ADHD, dementia, bipolar disorder, and schizophrenia.

These fatty acids are found in foods such as cold-water fish, flaxseeds, and walnuts, but it can be hard to reach optimum levels unless you're eating fatty fish (such as salmon or sardines) at least twice a week.

Accordingly, Emmons believes most of us benefit from supplements that contain several fatty acids from the omega-3 family: alpha-linolenic acid, docosahexaenoic acid (DHA), and eicosapentaenoic acid (EPA). Of these, DHA and EPA are the most easily metabolized forms of omega-3.

HOW TO SUPPLEMENT: Seek out a quality fish-oil formula with high concentrations of EPA and DHA (for vegetarians, algal oil is a good option). Adult men need around 1.6 grams of omega-3 daily; adult women need about 1.1 grams.

Magnesium

This mineral is sometimes called the "calming chemical," writes psychiatrist Drew Ramsey, MD, in his book *Eat to Beat Depression and Anxiety*. He notes that it was one of the first nutrients demonstrated to help treat depression.

Magnesium helps keep adrenals in check and contributes to the creation and transmission of the mood-regulating neurotransmitter serotonin. It also helps stimulate the release of soothing gamma-aminobutyric acid (GABA).

"It's the mineral at the center of photosynthesis," explains Ramsey. "I think about magnesium as a way to conduct the flow of energy from the sun all the way to your brain."

Emmons frequently recommends this mineral for individuals struggling with anxiety or sleep disturbances.

HOW TO SUPPLEMENT: Magnesium is found in a variety of foods, including dark chocolate and avocados. Supplements come in pill or powder form; the latter is combined with water to make a fizzy drink. Adult men need 400–420 mg daily; adult women need 310–320 mg. If your bowels become too loose, reduce your dose.

Zinc

The antidepressant properties of zinc are well known and well supported by research. The mineral may influence our levels of brain-derived neurotropic factor (BDNF), which supports the growth and survival of our neurons. This production of neurons is central to neuroplasticity, which helps the brain adapt in times of change or crisis. If we lack adequate zinc to support good BDNF levels, we're at greater risk of developing depression.

For those using selective serotonin reuptake inhibitors (SSRI), zinc appears to work well as an adjunct. The serotonin-enhancing effects of SSRIs may amplify zinc's therapeutic effects.

HOW TO SUPPLEMENT: Oysters and red meat offer zinc in abundance. Supplements come in pill form. Women need about 8 mg per day, while men should aim for 11 mg; it's best taken with food to avoid nausea.

Note: Excess zinc may interfere with the absorption of other minerals. Before supplementing, work with your healthcare provider to assess your baseline and determine an appropriate dose.

Iron

If the brain is the body's hungriest organ, iron is its maître d'. Hemoglobin, which is iron-based, transports oxygen to the brain, making this one of the most essential nutrients for supporting cognitive function.

Iron is also necessary for the production of dopamine and serotonin, which regulate mood, focus, and pleasure. And it's a key ingredient of myelin, the insulation around our nerves that speeds conduction between neurotransmitters.

Given all these roles, low iron levels can impair emotional and behavioral functioning, and they've been linked to brain fog and low energy. That's why Haas often recommends a complete blood-cell count to assess for iron deficiencies when clients are struggling with energy, focus, and mood.

HOW TO SUPPLEMENT: Iron supplements are widely available in pill form, but it's best to have your levels assessed by your healthcare provider before you start taking them. Generally speaking, adult men should consume 8 mg daily and women 18 mg, but our iron requirements are highly individual. They vary based on age, biological sex, and diet — a menstruating woman needs more iron than a postmenopausal one; vegetarians need nearly twice as much iron as those who consume meat, and so on.

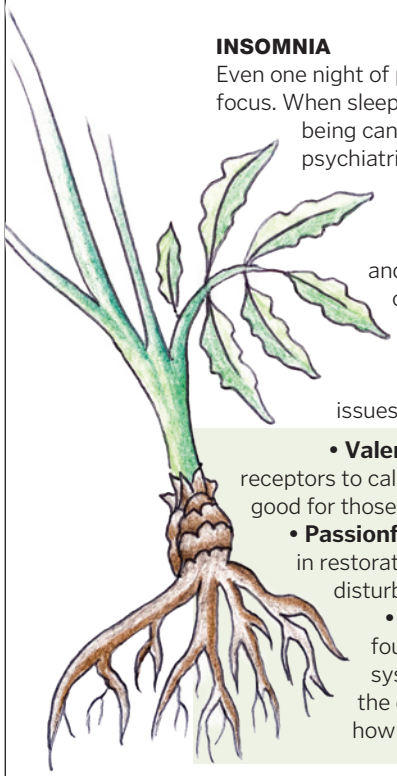
ALEXANDRA SMITH, MA, LPCC, is a licensed professional clinical counselor in Minneapolis.

FIND MORE SUPPORT

Learn about three more key nutrients at **ELmag.com/mentalhealthsupplements.**

On-the-Spot Mental Health Support

Occasional stressors like sleeplessness or brain fog can make it tempting to reach for over-the-counter drugs, but some mental health experts recommend trying nutritional supplements and remedies first. Here are a few common challenges and some remedies that can help.



INSOMNIA

Even one night of poor sleep can disrupt mood and demolish focus. When sleeplessness becomes chronic, mental well-being can suffer significantly. That's why integrative psychiatrist Henry Emmons, MD, believes that prioritizing sleep is the best way to promote optimal mental health.

"When sleep falls into place, depression and anxiety can sometimes improve on their own, and natural remedies are much gentler and safer than prescription sleep aids."

Emmons considers magnesium the most crucial micronutrient for treating sleep issues, but he also suggests these herbal remedies:

- **Valerian root** interacts with GABA and serotonin receptors to calm nerves and improve sleep; it's especially good for those who suffer from anxiety or hyperactivity.
- **Passionflower** can increase the time we spend in restorative slow-wave sleep, leading to fewer disturbances and better-quality rest overall.
- **CBD** stands for cannabidiol, a chemical found in hemp plants. CBD calms the nervous system, and studies suggest it may improve the overall quality of sleep. (Learn more about how CBD works at ELmag.com/cbd.)

ANXIETY

For chronic anxiety, it's key to boost baseline brain health with the supplements addressed throughout this article. But in times of acute stress, certain remedies can offer additional relief. "For situational stress, I look to remedies that tamp down stress hormones and support the adrenals," says Emmons. Here are some good options:

- **Kava root** contains kavalactones, compounds that influence a range of neurobiological activities related to anxiety, including modulating GABA receptors.
- **Ashwagandha** is an adaptogenic herb that can reduce cortisol levels and improve sleep.
- **L-theanine** is an amino acid that can settle some physiological responses to stress, such as elevated heart rate. (For more herbal anxiety remedies, see ELmag.com/herbsforanxiety.)

BRAIN FOG

A quality diet and stable blood sugar are keys to maintaining a clear head. Notably, dark chocolate contributes to both, according to psychiatrist Drew Ramsey, MD. He contends that the flavanols it contains may help combat brain fog.

But when the fog persists, there are supplements that can help. Functional nutritionist Jesse Haas, CNS, LN, recommends these herbs:

- **Tulsi** (a.k.a. holy basil) has been shown to improve mood and cognitive functioning, including memory.
- **Rhodiola** can help enhance memory, learning, and cognitive performance.
- **Curcumin** and ***Bacopa monnieri*** have been linked to improved memory and attention in the aging brain.

FATIGUE

To treat general sluggishness, Haas focuses on stabilizing blood sugar by reducing caffeine and sugar. Ramsey encourages clients to go gluten-free: He says gluten isn't a root cause of depression for most people, but that people with gluten and other food sensitivities may experience fatigue, headaches, joint aches, and mood changes when they eat those foods.

Emmons maintains that nutrient status must be part of the equation when addressing low energy. "I always think in terms of systems," he explains. He suggests these supplements:

- **Coenzyme Q10** supports energy production at the cellular level, in part by supporting mitochondria. Individuals with chronic fatigue syndrome typically have low levels of CoQ10, but supplementing can benefit energy levels for everyone.
- **Lithium orotate** is a milder version of prescription lithium (which is lithium carbonate). Emmons suggests that it can be a good choice if fatigue is accompanied by a low mood. (For more on this, see ELmag.com/moodsupport.)

Boost your workout with blueberries

Researchers are exploring how blueberry consumption may help to address a wide range of health needs, **including exercise recovery**. To properly recover from exercise after a tough workout, eating a healthy diet is critical. Blueberries are abundant in anthocyanins (plant compounds that give blueberries their beautiful blue color) and are a good source of vitamin C which means they have antioxidant and anti-inflammatory properties to help aid in muscle recovery.

ENJOY BLUEBERRIES PRE AND POST WORKOUT.

- Mix up a satisfying smoothie using frozen blueberries instead of ice.
- Try a handful with nuts, yogurt, granola, peanut or almond butter toast, cheese or a protein bar for a robust snack or mini-meal.
- Toss a handful into a refreshing salad.

GET THE SCOOP ON BLUEBERRY NUTRITION. ONE SERVING:

1. Is considered one serving of fruit — just 80 calories and a good source of fiber.
2. Contributes essential nutrients including vitamin C, vitamin K, manganese and phytonutrients called polyphenols.
3. Contains anthocyanins, which are compounds that give blueberries their blue color.

ONE SERVING OF BLUEBERRIES = A HANDFUL OR CUP

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GrabABoostOfBlue.com

Little Green Salad

BY **KAELYN RILEY**

Makes two servings • Prep time: Five minutes

DRESSING

- ¼ cup extra-virgin olive oil
- 3 tbs. lemon juice
- 1½ tbs. nutritional yeast
- 1 small garlic clove, minced
- 1 tsp. Dijon mustard
- 1 tsp. maple syrup or honey (optional)
- ½ tsp. sea salt, plus more to taste
- ¼ tsp. freshly ground black pepper, plus more to taste

SALAD

- 2 handfuls mixed greens

BEYOND THE BOTTLE

Sure, you can buy salad dressing at the supermarket. But you can also make your own with ingredients you probably already have on hand while avoiding the additives and artificial flavors in the store-bought varieties.

Combine the dressing ingredients in a jar, secure the lid, and shake until emulsified. Taste and adjust seasoning as needed. Divide the greens between two plates. Dress the greens lightly and toss to coat the leaves. Add toppings of choice (find ideas below) and more dressing as desired. Leftover dressing will keep in the fridge for up to two weeks.

TOP IT OFF

A few ideas for extra salad toppings:

- Toasted nuts or seeds
- Shaved Parmesan cheese
- Thinly sliced cucumbers or radishes
- Halved cherry tomatoes
- Chopped avocado
- Chopped apples, grapes, or citrus segments

KAELYN RILEY is an *Experience Life* senior editor.

A Glossary of Lesser-Known Cooking Terms

Ever wonder why a recipe says to "deglaze" the pan, or what it means to "fold" in egg whites? Get familiar with these culinary terms and their definitions so you can keep right on cooking.

BY **CAMILLE BERRY**

SWEAT

A simple way to coax flavor from chopped vegetables, sweating is often one of the first steps when preparing soups, stews, and sauces. The goal here isn't to brown the veggies; rather, you want to gently heat them with a sprinkle of salt to soften them and release their flavors.

As the vegetables cook, you'll see small beads of "sweat" form on the surface — that's moisture being drawn out, aided by the salt, which concentrates their flavor.

The best candidates for sweating are aromatic vegetables, which you'll recognize as the building blocks of many dishes: celery, carrots, peppers, fennel, and alliums (think onions, shallots, garlic, and leeks).

The next time you're making a casserole or a ragu, don't be afraid to let those veggies sweat to form the base for a super flavorful dish.

DEGLAZE

Deglazing is a not-so-secret way to imbue dishes with exceptional flavor. It's as simple as pouring liquid into a hot pan after cooking something over high heat, then gently scraping to loosen the bits from the bottom. Also known as fond, those brown bits are the deeply flavorful result of caramelization that occurs while cooking.

Typically, broth, stock, and wine are go-tos for deglazing because of the flavor they contribute, but nearly any liquid — juice, beer, and even water — works. Deglazing occurs in familiar dishes like penne alla vodka and beef stew. You can splash a little cognac into a roasting pan to make gorgeous gravy for roast chicken. Or try the method with our recipe for Mussels in Lemongrass Coconut Broth at ELmag.com/mussels.

CARAMELIZE

Caramelization is common in cooking; it occurs anytime sugar is placed over heat. You can caramelize pure sugar, which is how you make caramel sauce, but it also occurs when vegetables and fruits are cooked — the sugars in the produce begin to brown and develop a toasty, savory flavor.

Caramelization is a dry-heat cooking method, meaning it doesn't happen if you're cooking with water (like steaming or boiling). Alliums do particularly well with this treatment, as in our Caramelized-Onion Dip at ELmag.com/oniondip.

BLANCH

Blanching involves plunging food — most often vegetables — into boiling water for a short time, followed immediately by shocking (see next entry). This technique preserves nutrients, which can often degrade with other cooking methods.

It also prevents the loss of flavor, color, and texture, particularly for vegetables that you're going to can or freeze. Blanching is brilliant for taming the bitterness of leafy greens, or for any time you want a tender-crisp — but not crunchy and raw — veggie.

SHOCK

A technique often used immediately after blanching, shocking is the act of submerging partially cooked veggies in an ice bath to stop the cooking process. Shocking keeps vegetables crisp and preserves their bright colors. You might also use this technique after boiling eggs to make them easier to peel. Try our method for the perfect boiled egg at ELmag.com/boiledeggs.

POACH

Like its siblings boiling and simmering, poaching involves cooking food submerged in liquids but at low heat. Stock, wine, and water are all standard, but as with deglazing, most any liquid will do. Beer, cider, coconut milk, and juice make beautiful poaching liquids.

You're likely familiar with poached eggs, but fish, chicken, and fruit also take well to this method, which preserves delicate, nuanced flavors and textures that may be overwhelmed with higher-heat cooking.

The secret to poaching? Patience. Low and slow is the key here. For a lovely classic dessert, try our Poached Pears at ELmag.com/poachedpears.

AL DENTE

Much modern cooking terminology comes from French cuisine, but "al dente" is purely Italian, and it's mostly used to refer to the doneness of pasta (and sometimes rice). Al dente means "to the tooth," or tender yet firm when bitten. It's not only about texture: Al dente pasta has a lower glycemic index, which means more stable blood sugar.

With a little practice and taste-testing, you can make perfectly al dente pasta, just like a true *nonna*. Get started with chef José Andrés's recipe for Pasta With Eggplant and Chickpeas at ELmag.com/eggplantpasta.

SOUS VIDE

Pronounced "sue-veed," this term means "under vacuum" in French and involves vacuum-sealing food, then cooking it in a water bath at a low temperature. It's widely considered one of the best ways to achieve an exact degree of doneness, thanks to the strict temperature control.

You can use the sous vide technique on nearly anything — meat, poultry, fish, vegetables, and even eggs. But you need special kitchen gear: a vacuum sealer, an immersion circulator, and a sous vide water bath. Even if you never try this at home, you might encounter the term while perusing a restaurant menu.

BRAISE

Braising is a combination of dry- and moist-heat cooking: Start by browning your protein (often a large, tough cut of meat), then add enough liquid to partially cover and simmer. While braising, the fat renders, tissues dissolve, and collagen breaks down into gelatin, making the meat more tender.

Tough cuts like short ribs, oxtail, chuck roast, and pork shoulder are among the most popular picks for the braising pot. Chicken thighs, with their higher fat content, are also a good choice. Plant-based eaters can easily braise vegetables solo — just make sure to include fat to add depth and richness, like in our recipe for Braised Greens at ELmag.com/braisedgreens.

CHIFFONADE

Those whisper-thin slips of herbs garnishing a soup, salad, or pasta are created by a technique known as chiffonade. Why bother (beyond aesthetics, of course)? When you chiffonade greens, it releases their beautiful aromas. That's one reason why basil is so often destined for this treatment.

You'd struggle to chiffonade cilantro, thyme, and rosemary because their leaves are too small. But it's deceptively easy to do with bigger leaves, like mint, sage, spinach, chard, and kale. Layer leaves on top of one another, then roll them up tight and use a super-sharp knife to slice them into thin ribbons.

A sharp knife is crucial for this technique: Attempting to chiffonade with a dull knife can cause the blade to tear and bruise the leaves rather than slice cleanly through them, discoloring tender greens and muting their flavor.

Those ribbons of leafy greens can be wilted into soups, stews, stir-fries, or any other one-pot meal that could use something green. You can also sprinkle chiffonaded fresh herbs over your favorite dishes as an elegant finishing touch.

FOLD

A technique often used in baking, folding involves gently incorporating a light mixture into a heavier one, usually by slowly scraping the bottom of the bowl and scooping the mix over itself in a "folding" motion. Folding is commonly used with airy ingredients like beaten egg whites or whipped cream — you often want to incorporate these mixtures into a heavier batter without deflating the air that you've whipped into them.

EMULSIFY

As the saying goes, oil and water don't mix — unless, of course, you emulsify them. Emulsifying involves combining nonhomogenous liquids (typically water and oil or some other kind of fat) so they remain fused — through vigorous shaking, dedicated whisking, or thorough mixing. An emulsion can be temporary, as happens in a salad dressing made with oil and vinegar, or permanent, as in mayonnaise, butter, and cream.

CAMILLE BERRY is a wine and food writer based in San Francisco.

Bountiful Bowls

Endlessly versatile and easily customizable, a grain bowl is an excellent template for a fresh, nutritious meal.

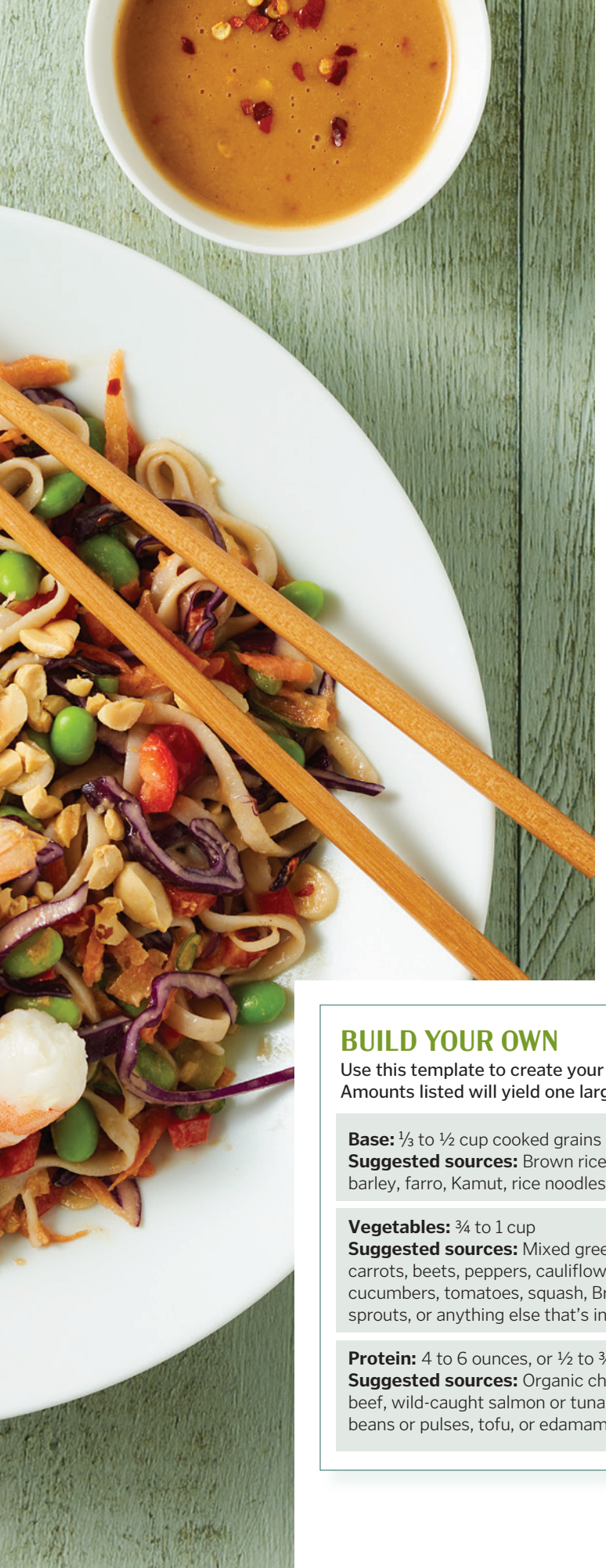
BY **MADDIE AUGUSTIN**

Let me tell you about my perfect springtime meal. It's fresh and colorful, vibrant and nutritious. It features an irresistible mix of delicious flavors and enticing textures. And it includes some of my favorite healthy foods, like cabbage and carrots . . . or tomatoes and cucumbers . . . or, wait, what about spinach and beets?

I love grain bowls because they offer a flexible template for varying my produce intake according to the seasons. And I can easily add or subtract ingredients to fit my mood and my nutritional needs. If I want more protein, I can top my bowl with shredded chicken. If I'm craving something fermented, I'll add a scoop of sauerkraut on the side.

Want to discover your perfect bowl? Try one of these three recipes to get started, or use our formula at the right to build a creation all your own.

POWER UP
Add more protein to this bowl with poached shrimp or baked tofu.



Spicy Peanut Noodle Bowl

Makes four servings
Prep time: 20 minutes
Cook time: Five minutes

SPICY PEANUT SAUCE

- 1 clove garlic, minced
- 1 tsp. minced fresh ginger
- ⅓ cup water
- 3 tbs. peanut butter
- 2 tbs. soy sauce, tamari, or coconut aminos
- 1 tbs. honey
- 2 tsp. chili-garlic paste
- ½ tsp. toasted sesame oil
- ½ tsp. red-pepper flakes

BOWL

- 4 oz. pad Thai brown-rice noodles
- 1 red bell pepper, diced
- 1 cup shelled edamame, thawed if frozen
- 1 cup shredded purple cabbage
- ½ cup shredded carrots
- 2 oz. peanuts, chopped
- 3 green onions, sliced

In a small bowl, whisk the sauce ingredients until smooth. If your peanut butter or honey is too thick, set the jar in a warm-water bath for five minutes to soften before mixing the sauce.

Bring a large pot of water to a boil and cook the rice noodles according to package directions. Strain and rinse the noodles thoroughly in cold water.

In a large mixing bowl, toss the rice noodles with the peanut sauce, bell pepper, edamame, purple cabbage, and carrots.

Just before serving, garnish with the peanuts and sliced green onions.

BUILD YOUR OWN

Use this template to create your own grain bowl with your favorite ingredients. Amounts listed will yield one large or two small servings.

Base: ⅓ to ½ cup cooked grains
Suggested sources: Brown rice, quinoa, barley, farro, Kamut, rice noodles, wild rice

Vegetables: ¾ to 1 cup
Suggested sources: Mixed greens, broccoli, carrots, beets, peppers, cauliflower, cabbage, cucumbers, tomatoes, squash, Brussels sprouts, or anything else that's in season

Protein: 4 to 6 ounces, or ½ to ¾ cup
Suggested sources: Organic chicken, grassfed beef, wild-caught salmon or tuna, shrimp, eggs, beans or pulses, tofu, or edamame

Healthy fat: 1 to 3 tablespoons
Suggested sources: Olive, avocado, coconut, or sesame oil; nuts and seeds; cheese; avocado

Add-ins: To taste
Suggested sources: Sauces like pesto, curry, salsa, or vinaigrette; fresh herbs like cilantro, basil, parsley, or chives; dried herbs like rosemary, thyme, oregano, or sage; spices like cumin, red-pepper flakes, paprika, or black pepper; fermented foods like kimchi or sauerkraut

POWER UP
Boost the protein profile of this bowl with wild-caught tuna or an egg.

Tabbouleh Bowl

Makes four servings • Prep time: 20 minutes • Cook time: 15 minutes

TABBOULEH

- 1½ cups quinoa, rinsed and drained
- 3 cups water
- 1 cup chopped parsley with tender stems, packed
- 3 green onions, sliced
- 1 tbs. lemon juice
- ½ tsp. sea salt
- Pinch of allspice
- Pinch of black pepper
- 1 tbs. extra-virgin olive oil
- ½ cup cherry tomatoes, finely chopped

TOPPINGS

- 1 15-oz. can chickpeas, rinsed and drained
- ½ cup jumbo green olives or Spanish queen olives, halved
- 1 large English cucumber, diced
- 1 cup cherry tomatoes, halved

Add the quinoa and water to a small saucepan over high heat. Bring to a boil. Cover, reduce heat to low, and cook for 15 minutes, or until the water is absorbed. Remove from heat and fluff with a fork.

Add the parsley, green onions, lemon juice, sea salt, allspice, and black pepper to a food processor. Pulse until everything is finely minced, scraping down the sides as needed. Drizzle in the olive oil and pulse to combine.

Scrape into a large mixing bowl, then add the finely chopped tomatoes and quinoa, and stir until mixed.

Create a base with the quinoa mixture on a plate, and top with the chickpeas, olives, cucumbers, and cherry tomatoes.

Beets and Greens Bowl

Makes four servings
Prep time: 15 minutes
Cook time: 45 minutes

HONEY-MUSTARD DRESSING

- 3 tbs. honey
- 3 tbs. whole-grain Dijon mustard
- 3 tbs. extra-virgin olive oil

BOWL

- 2 tbs. extra-virgin olive oil
- 1 shallot, diced
- 2 cloves garlic, minced
- 1 cup farro
- ½ tsp. sea salt, divided
- 3 cups water
- 1 lb. beets, scrubbed and trimmed
- 2 cups spinach, chopped
- ½ cup chopped walnuts
- 4 oz. goat cheese, crumbled

In a small bowl, whisk the dressing ingredients until combined.

Preheat a large saucepan with olive oil over medium heat. Add the shallots and cook, stirring frequently, until tender and translucent, about three to four minutes. Add the garlic and cook until fragrant, about one additional minute.

Add the farro and ¼ teaspoon of the salt, and stir until lightly toasted and fragrant, about three to four minutes. Add water, increase heat to high, and bring to a boil. Cover, reduce heat to low, and simmer for 30 to 35 minutes, or until the grains are tender. Strain off any excess water if necessary.

While the farro is cooking, quarter the beets and chop them into bite-sized pieces. Place them in a small saucepan and submerge completely in water. Add the remaining ¼ teaspoon of salt and bring the water to a boil. Cook until the beets are fork-tender, about 25 minutes, then strain.

In a large mixing bowl, combine the farro, cooked beets, chopped spinach, chopped walnuts, and dressing. Toss until combined, then sprinkle with goat cheese.

POWER UP
Increase the protein in this bowl with seared grassfed sirloin or some cooked chickpeas.

ENJOY MORE

Find more great grain-bowl combos at **ELmag.com/veggiegrainbowls.**

MADDIE AUGUSTIN is a Minneapolis-based recipe developer.

What Your Hunger Is Trying to Tell You

If you're feeling famished, you probably need food — but sometimes your hunger means more.

Tune in to better understand what your body might really need.

BY **JESSIE SHOLL**

Alexandra Jamieson was in her mid-20s when she started experiencing chronic migraines, as well as anxiety and depression. She decided to try healing herself with diet. When she embraced veganism, she found immediate relief from her symptoms. She went on to cocreate *Super Size Me*, the Oscar-nominated documentary about the toxic effects of fast food on one man's body, which led her to public acclaim as a vegan chef and wellness coach.

Fast-forward 10 years. Jamieson was 35, and she had begun getting her period every two weeks. She felt exhausted and drained. She tried to heal herself with food as she'd done before, using all available tools within veganism to balance her hormones and restore her energy. None of it helped.

Around this time, she had started to crave red meat. When she went out to dinner with friends, she would secretly hunger for their steaks while she dutifully ate a tofu salad.

At first, she resisted, realizing the risks to her highly public reputation as a vegan chef. But Jamieson eventually chose to listen to her body and discovered that her cravings were telling her what she needed. After she began eating animal products — at home with the curtains drawn — she felt her strength and energy return.

"My body said, *Yes, more of that, please*," she recalls. She soon learned she'd been severely anemic.

Her choice to eat meat led to brutal online criticism and the loss of close friendships. But she didn't regret her decision, concluding that "the diet that heals you may not be the diet that sustains you."

Jamieson didn't renounce veganism; she just discovered that it was no longer right for her. Importantly, she also learned that she had been ignoring other signals from her body. Honoring her food cravings led her to a deeper understanding of what else she was missing in her life, including physical intimacy.

Her story, which she shares in her book *Women, Food, and Desire*, shows that food cravings can reveal more than just nutritional deficits. Hunger and other cravings carry important information about almost all our needs.

Based on her own experience, Jamieson suggests that we ask ourselves, without judgment, *What is the information I'm getting from this craving?* It can help us learn a lot about our physical, mental, and emotional needs and desires.

That said, it's not always so easy to understand our appetites. Most of us have been conditioned to think of hunger as something to be disciplined, not acknowledged. (This is especially, but not exclusively, true for women.)

We may repress or ignore hunger and cravings, distrusting and denying the signals. We might struggle to separate eating from anxieties about weight and size, or we might take refuge in disordered eating for a feeling of control.

All this resistance to our body's messages can lead to some real bewilderment about what our hunger is trying to say. Do we need food, or different food? Do we need comfort? Do we want to celebrate or connect? Are we really, really tired? Are we bored?

Hunger can mean all these things and more.

To help clear up some of this confusion, we asked some experts to clarify the meaning of hunger — as well as the many things it might be trying to tell us. They also share why these messages are so important. Learning to hear and decipher our hunger cues allows us to work with, rather than against, our bodies and their diverse needs.

ILLUSTRATIONS: TRACY WALKER

What is physical hunger?

The sensation of hunger is a signal from your body to the brain to find food. Your stomach might growl, you may feel irritable, and you are likely to become preoccupied with food until you eat.

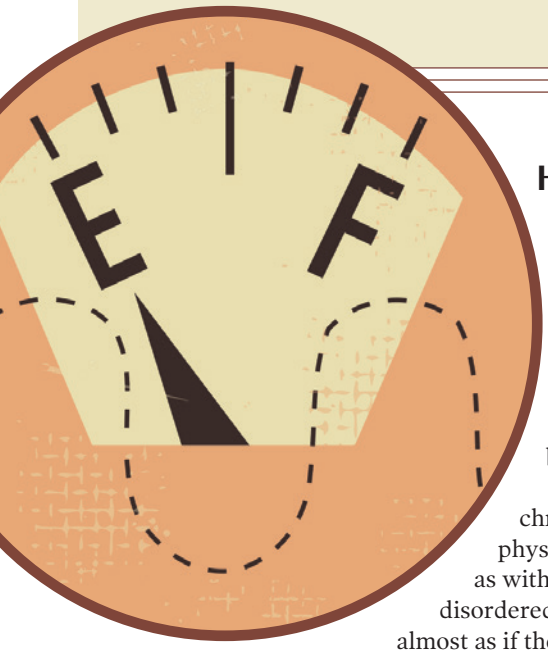
The whole process is stimulated by the release of hormones. "Many metabolic hormones help regulate hunger, but two of the biggest are leptin and ghrelin," explains functional-medicine dietitian Katherine Wohl, RDN, IFNCP. When you're hungry, your stomach produces ghrelin and sends it to the brain — it's like the warning light flashing on the fuel gauge in your car, alerting you that you're running low.

Once you've eaten, leptin kicks in. Also known as the satiety hormone, leptin is secreted by fat cells, telling your brain that you've stored enough energy now, and that it can call off the alarm. "When we eat when we're hungry, and stop when we're full, we get those cues in a really harmonious way," Wohl explains.

If there's a hormonal disruption, however, the cues can go haywire.

Insulin is another hormone that regulates metabolism, and it can become dysregulated when there's more glucose in the system than the body can handle. The stress hormone cortisol can also upend the hunger-signaling process. When metabolic hormones are out of balance, Wohl says, "we lose our body's innate wisdom that helps tell us when we're hungry and when we're full."

(To learn more about insulin and cortisol, go to ELmag.com/balancehormones.)



How does chronic dieting affect appetite?

Missing a meal now and then won't harm your hunger cues, but routinely repressing or ignoring them can scramble the body's signals.

When we chronically resist physical hunger, as with dieting or disordered eating, it's almost as if the body throws up its hands. "The body is wired for survival," says psychologist and eating-disorder specialist Rachel Millner, PsyD. "If we're not eating day after day, it will stop sending out cues, such as stomach growling or shakiness. This is like the body saying, 'This person isn't feeding me consistently, so I'm not going to show those more obvious signs of hunger anymore.'"

At this point, metabolism slows and blood pressure drops. "The body needs food to stay alive, and if it's not getting enough, it's going to slow down and quiet everything else to try and preserve life," explains Millner. "You will likely feel fatigue and will be thinking about food more often." This confusion of signals can make it hard to tell when you're hungry or when you're full.

But the body is wise, and it's possible to reteach it to feel hunger. In the same way it learns to start shutting down when it's being deprived, it will start waking up when food is available again.

In her work with clients recovering from eating disorders, Millner first asks them to eat predictably and consistently throughout the day — whether they're aware of hunger or not. "Start to build a trusting relationship with the body, where every couple of hours it starts to learn that food is coming."

Over time, this consistency helps rebuild appetite. Your body recognizes that sending hunger signals is a good use of energy, because it results in being fed.

Missing a meal now and then won't harm your hunger cues, **but routinely repressing or ignoring them can scramble the body's signals.**

Does fatigue make us feel hungrier?

Sleep deprivation can throw your hunger hormones out of whack. Ghrelin surges, making us hungrier. Leptin sputters, making it harder to feel sated. And stress hormones like cortisol flood the bloodstream.

This is the brain's way of putting out an SOS for more fuel. It's trying to compensate for the lack of sleep with other sources of energy, preferably "any kind of energy source that will deliver the most immediate surge of usable fuel," explains Jamieson.

That energy source is often sugar. "What do you crave when you're low on sleep?" Wohl asks. "You crave sugar and carbs so that you can get that energy back. Studies show that sleeping less than seven hours can increase your cravings for sweet foods — but getting extra sleep, even if it's small amounts, can reduce cravings."

Why do I crave salty foods?

Salty foods are often highly palatable, but salt cravings can be about more than just taste. They may be a signal that the body is experiencing chronic stress, which taxes the adrenal glands by constantly calling on them to produce more cortisol.

"When people crave salt, it's often either that their blood pressure is low or they have some adrenal dysfunction," explains integrative physician Frank Lipman, MD. "Often when those hormones are off, there's a craving for salt." (For more on managing cortisol and adrenal health, see ELmag.com/cortisol.)

Salt is a mineral we lose when we sweat, so we might also crave it after an intense workout or a sauna. Pediatrician Jan Chozen Bays, MD, once saw a 1-year-old child who was "so floppy that he was unable to sit up." His parents had just driven through 100-degree heat, hydrating him with distilled water, which is stripped of minerals, including sodium.

Upon hearing this, Chozen Bays went to the cafeteria and returned with a bag of chips. Immediately, the boy sat up, grabbed the chips, and started eating. "He had 'heard' his cells calling out for sodium chloride (salt), and as soon as he saw it, he responded," she explains in her book *Mindful Eating*.

Is there a difference between hunger and cravings?

In general, hunger builds gradually, while cravings come on suddenly. And while hunger is more open-minded, cravings tend to target one food specifically.

Sometimes hunger is described as physical and a craving as emotional, but Millner doesn't believe that emotional hunger is any less legitimate.

A craving for chocolate, for example, may be a sign that you're feeling lonely or bored and your body knows the comforting hit of dopamine it provides will give you a lift.

"Many of us have connections with certain foods to childhood or memories," she says. "Sometimes we might crave certain foods based on that."

Why do I lose my appetite when I'm anxious, angry, or sad?

When you're anxious or afraid, your body detects a threat. The sympathetic nervous system responds by flooding your body with cortisol, preparing it to react. In this state, digestive processes are suppressed as blood flow is redirected toward bigger interior muscles, ones that enable you to put up your dukes or run like the wind. This is not the time to think about food, after all: Your body is convinced that it's time to escape danger.

Sometimes, appetite loss also occurs when we feel sad. Some healthcare providers see this as an early warning sign of depression: A loss of interest in food may indicate a broader disinterest in regular activities.

Not eating, Millner says, may be part of a coping strategy that helps numb emotions we'd rather not experience. "For some people, eating less can dull some of the feelings."

Why do I sometimes feel hungry immediately after a big meal?

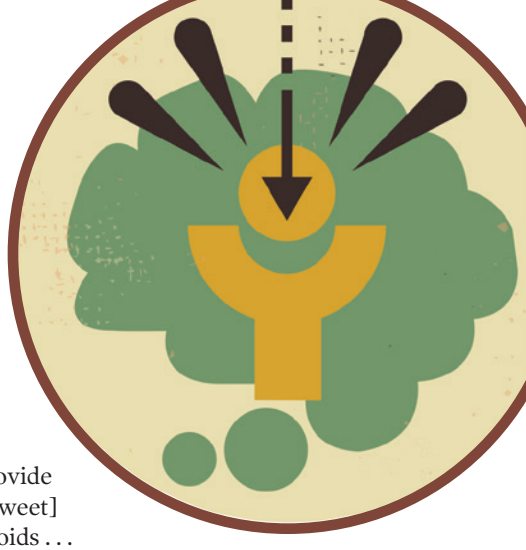
It may have something to do with what you ate — or didn't eat. A meal without much fiber or protein won't keep you full for long. Protein takes longer to digest than carbohydrates, and fiber helps slow the digestive process — all of which helps keep you feeling sated. Fast-burning, low-fiber carbohydrates, such as white bread, pasta, and pizza, won't keep you feeling full.

Protein also reduces ghrelin levels and increases leptin sensitivity. "Protein is an incredibly satiating macronutrient," Wohl says.

Similarly, a meal containing a lot of sugar (think French toast with syrup and a large cup of sweetened coffee) can set off an insulin reaction that leaves you feeling not just hungry but cranky. You might then crave protein or fat, a sign that your body is struggling to get macronutrients that can satisfy it. (To learn more about how excess insulin can provoke hunger, see ELmag.com/alwayshungry.)

Finally, you may just need water. "Sometimes when people think they're hungry . . . they're actually thirsty," notes Lipman.

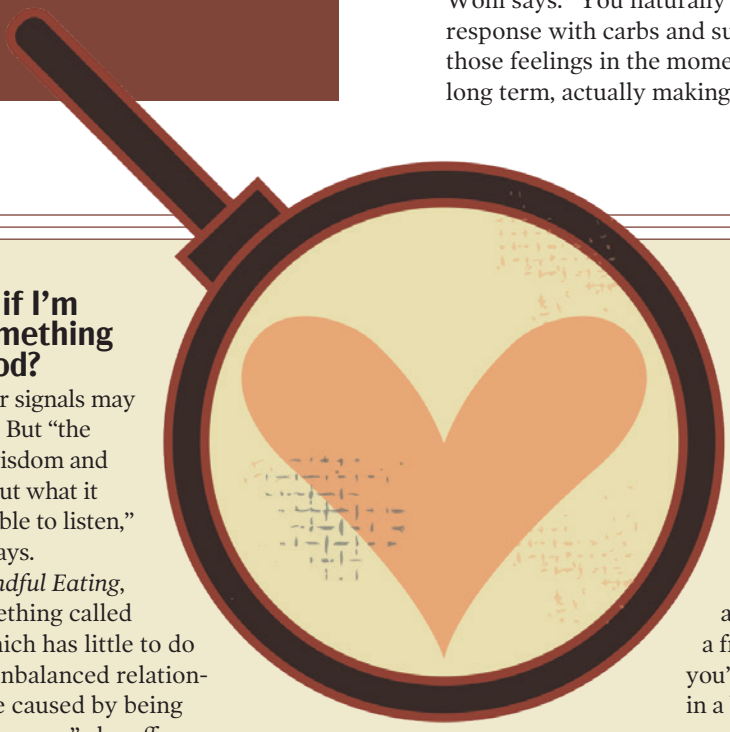
In general, hunger builds gradually, while cravings come on suddenly. And while hunger is more open-minded, cravings tend to target one food specifically.



Why do I crave sugar when I'm upset?

Sometimes when we crave sugar, we're just trying to feel better — and sweet foods do provide a temporary boost. "[Sweet] substances release opioids . . . into our bloodstream, and when those chemicals bind with the receptors in our brain, we experience an intense sensation of pleasure — maybe even get a little high," explains Jamieson.

A habit of turning to sweets can become an unconscious strategy for mitigating difficult feelings, Wohl says. "You naturally want to tamp down that stress response with carbs and sugar and foods that mitigate those feelings in the moment — but it backfires [in the] long term, actually making the stress response worse."



How can I tell if I'm hungry for something other than food?

Deciphering hunger signals may take some practice. But "the body has its own wisdom and can tell us a lot about what it requires if we are able to listen," suggests Chozen Bays.

In her book *Mindful Eating*, she describes something called "heart hunger," which has little to do with food. "Most unbalanced relationships with food are caused by being unaware of heart hunger," she offers. "No food can ever satisfy this form of hunger. To satisfy it, we must learn how to nourish our hearts."

Most of us need to learn to identify heart hunger before we can satisfy it. Chozen Bays recommends the following exercises:

- Make a list of the foods you eat when you are sad or lonely.
- Notice when you feel an impulse to have a snack or a drink between meals. Stop and observe the emotions and thoughts you were having just before the impulse arose. Then, if you have the snack or drink, pay attention. Does anything change?

If you notice that what you're really feeling is loneliness, try addressing it directly by calling a friend. Or if you discover that you're genuinely sad, wrap yourself in a blanket and feel sad. This is how you feed heart hunger — by giving the heart what it really wants.

Finally, if you discover that what you're hungry for really is food, then put some food on a plate, sit down, and enjoy a meal that will nourish you on every level.

JESSIE SHOLL is an *Experience Life* contributing editor.

NO GUTS, NO GLORY

UNCOVERING THE CONNECTION BETWEEN THE GUT MICROBIOME AND ATHLETIC PERFORMANCE.

BY **MICHAEL DREGNI**

DAYBREAK FINDS MANY A BICYCLE RACER putting in grueling hours in the saddle, riding long distances through the sunrise and morning mist to build cardio endurance. On the hardest days, this baseline training is capped with sprint intervals or hill repeats, the extreme efforts to push riders into the red zone and challenge their muscles, which then rebuild better, stronger, faster on recovery days.

Plotting their training regimens, bike racers target their leg muscles, heart, and lungs. Mountain biker Lauren Petersen considered something more — her gut.

Petersen, who has a PhD in genetics, had a gut feeling that her microbiome may play a key role in her athletic performance. This hypothesis led her down a research path, which she detailed on the *Nourish Balance Thrive* podcast in 2017 and 2018.

The gut microbiome is the vast ecosystem of microorganisms and their genetic material inhabiting our gastrointestinal tracts. Not so long ago, we were taught to fear all contact with germs, wash our hands religiously, and liberally use antibiotics to protect ourselves. Now, in just two short decades since researchers began to understand the workings of the microbiome and the term became popular parlance, we're learning to embrace many of those same germs.

Trailblazing researcher Alessio Fasano, MD, professor in the Department of Nutrition at the Harvard T. H. Chan School of Public Health, now hails the microbiome as an "invisible organ" that shapes our lives. Others call the microbiome a second brain.

We contain multitudes of bacteria, fungi, parasites, and viruses — as many as 100 trillion, in fact. Human cells actually make up only half of our bodies; the other half is composed of microbes. And, as Petersen learned, not only does the 21-foot-long gastrointestinal tract host a microbiome, but scientists are discovering microbiota in our eyes, skin, and mouth — and probably elsewhere.

So, what does the gut microbiome do? More — maybe much more — than we likely realize. Researchers now recognize that it plays a role in digestion and nutrition absorption, immune-system and brain function, and mental health.

Petersen suspected it also affected how well she rode her bicycle.

Her athleticism had been suffering. She contracted Lyme disease when she was 11 and spent the next 10 years taking "all the antibiotics that you could name," she explained on *Nourish Balance Thrive*. By the time she was 21, she was finally cured of Lyme, but at a cost: She suffered chronic exhaustion and stomach issues so severe she could hardly digest food.

PHOTO ILLUSTRATIONS: LYDIA ANDERSON

She searched for a cure during graduate school, still striving to train for racing but so worn down she could only muster the strength to ride her bicycle twice a week, at best. The blood tests and stool tests doctors ordered offered no clues.

"Everything was fine," Petersen said. "But I knew something was wrong."

While working toward her PhD, she learned about the American Gut Project at the University of California, San Diego, where researchers were attempting to map the human microbiome, an effort akin to the Human Genome Project's sequencing of DNA. "This little green light went off in my head," Petersen remembered.

WE CONTAIN MULTITUDES OF BACTERIA, FUNGI, PARASITES, AND VIRUSES — AS MANY AS 100 TRILLION, IN FACT.

She submitted a fecal sample and the results showed her microbiome was devoid of healthy bacteria. "It was shocking."

By the time Petersen turned 31, in 2014, she decided there was only one solution: a fecal transplant of healthy bacteria. But the U.S. Food and Drug Administration had restricted the enema-like procedure in 2013; it was legal in the United States only when used to battle severe cases of *Clostridium difficile* infection, which causes diarrhea and colitis.

It was Petersen's mom who suggested they do it themselves at home.

Copious research had warned Petersen of the potential dangers. But she recruited another athlete as a donor: an elite bike racer whose microbiome had been deemed healthy after a recent bout of salmonella. So, while writing her doctoral dissertation, Petersen scrubbed her system clean with antibiotics, then performed a DIY fecal transplant.

During the transplant process, human feces containing a balanced suite of beneficial microbes are transferred from a healthy individual to someone needing their gut flora replenished. A DIY transplant employs a sanitized kitchen blender and store-bought enema kit. [Editor's note: DIY fecal transplants are not legal or recommended by medical doctors; rather than curing microbiome problems, they can cause them.]

"It's very, very unpleasant," Petersen recalled.

It was also simple and fast. And the effects manifested quickly.

Within a month, she was eating normally and experiencing no stomach discomfort for the first time in two decades. Two months later, she was back on her bike, training vigorously. She began to race again — and win.

Based on her experience, Petersen launched the Athlete Microbiome Project, studying athletes' microbiota as part of the National Institutes of Health–funded Human Microbiome Project at The Jackson Laboratory for Genomic Medicine in Farmington, Conn.

It was while discussing her new research in 2017 that the story of Petersen's fecal transplant broke in the mainstream press with sensationalized stories everywhere — from the *Washington Post* to ESPN — displaying all the glee of toddlers saying a naughty word out loud. As *Bicycling* magazine queried, "Is Poop Doping the Next Big Thing?"

Fellow scientists, including Jonathan A. Eisen, PhD, genomics professor at the University of California, Davis, were harsher, poo-pooing her DIY transplant.

They were missing the point.

Poop doping wasn't the next big thing; the future was something far simpler. What they overlooked was the prescient message that Petersen delivered: She was thinking big by thinking microscopic.

Petersen predicted that someday soon athletes would be able to pop a pill containing specially formulated doses of probiotics — beneficial living microorganisms — to "train" their microbiomes for athletic performance.

GUT CHECK

It seems fitting that the first study of athletes' microbiomes would be connected to a sport offering plenty of opportunities to get down and dirty with germs. Professor Fergus Shanahan, MD, at Ireland's University College Cork, asked Michael Molloy, a former team doctor for Ireland's famed national rugby team, if he could help him study the squad's feces to assess their microbiomes.

"We had to sell it to [the players]," Molloy told *Outside* magazine. "But when we talked about possibly improving performance — well, you know, they'd eat cow dung to increase performance."

In groundbreaking research published in 2014 in the journal *Gut*, Shanahan, Molloy, and their academic team found that the 40 rugby players had lower inflammatory and improved metabolic markers, plus dramatically more diverse microbiota than two nonathlete control groups. In particular, their microbiomes boasted significantly elevated levels of *Akkermansia*

bacteria, which other studies have shown to improve metabolic function and enhance gut-barrier function.

Shanahan and Molloy concluded that exercise and diet improve gut microbial diversity — and a more diverse microbiota improves athletic performance. "Diversity is important in all ecosystems to promote stability and performance," the study authors wrote. And they predicted that "microbiota diversity may become a new biomarker or indicator of health."

Their study was the first of many in what has become a flourishing field of research. In 2017, Petersen's Athlete Microbiome Project published its exploratory pilot study in *Microbiome*. They assessed the fecal DNA in the microbiota of a small selection of elite cyclists — just 33 people.

A number of the elite cyclists had a surfeit of *Methanobrevibacter smithii*, which the study authors suggest may spur "metabolic efficiency." "Theoretically, this could lead to reduced recovery time from intense exercise and may even influence race performance," Petersen concluded.

They also had a host of *Prevotella*, which boosts biosynthesis of branched-chain amino acids; BCAAs may not enhance performance, but they do promote muscle-protein synthesis and decrease muscle fatigue.

Oddly, *Prevotella* is rare in American adults' microbiomes. It's connected with diets high in fiber and carbohydrates and more often found in people from central Asia and Africa. This sparked Petersen to ask: Which came first — the chicken or the egg? Does athletic training nurture microbial diversity in the gut, or does a special mix of microbes foster athletic superpowers?

"Our results raise several questions," Petersen wrote. "Would a given cyclist have an increased chance of becoming a professional athlete if they were colonized by *M. smithii* due to increased metabolism of the gut microbiome? Or would a lifetime of training, competition, and a diet high in complex carbohydrates somehow influence a better niche for *M. smithii* to thrive where the gut is constantly subjected to physiological perturbations?"

Further studies followed, involving America's Cup sailors, bodybuilders, elite distance runners, Olympic rowers, ultramarathoners, and participants from other disciplines. But many of the studies were based on small pools of participants, such as both Shanahan's and Petersen's; could not control for all dietary elements, like Shanahan's; or were observational.

"A big issue is drawing causation from observational, cross-sectional studies," Arizona State University nutrition scientist Alex Mohr, PhD, told *Nature*. "We really need some longitudinal and, importantly, experimental work."

In a 2020 *Journal of the International Society of Sports Nutrition* review of all these studies to date, the authors concluded that "the gut microbiota, with its ability to harvest energy, modulate the immune system, and influence gastrointestinal health, likely plays an important role in athlete health, well-being, and sports performance."

The race was now on to pinpoint the beneficial bacteria to create a probiotic performance pill.

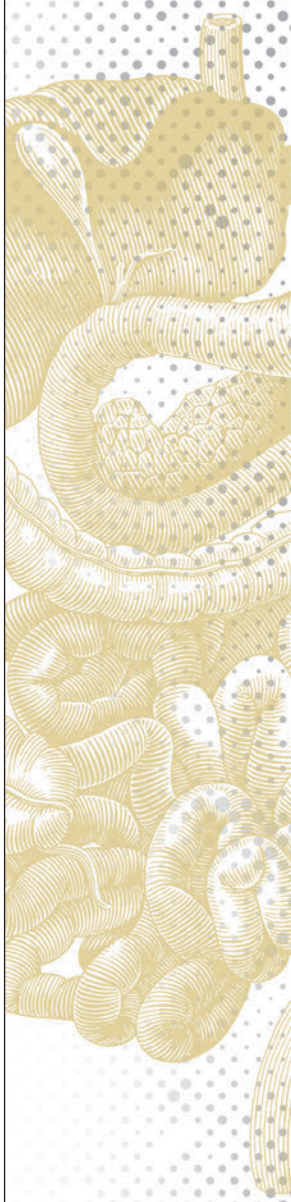
THE NEW FRONTIER OF FITNESS?

"When we first started thinking about [a probiotic for athletes], I was asked whether we could use genomics to predict the next Michael Jordan," says Jonathan Scheiman, PhD, then a research fellow at Harvard Medical School and Harvard University's Wyss Institute for Biologically Inspired Engineering. "But my response was that a better question is: Can you extract Jordan's biology and give it to others to help *make* the next Michael Jordan?"

Scheiman, himself a former Division I college basketballer, made his comments prior to a 2017 meeting of the American Chemical Society at which he presented a longitudinal — yet still small — study subsequently published in *Nature Medicine*. For the research, he spent two weeks collecting stool samples from 20 Boston Marathon runners and keeping them on dry ice in his car so he could study their microbiomes from before and after the race.

"The bugs in our gut affect our energy metabolism, making it easier to break down carbohydrates, protein, and fiber," Scheiman says. "They are also involved in inflammation and neurological function. So perhaps the microbiome could be relevant for applications in endurance, recovery, and maybe even mental toughness."

In particular, Scheiman's team found a prevalence of *Veillonella* in the marathoners' guts. The bug speeds the breakdown of lactic acid; when injected into mice, *Veillonella* upped the amount of time they could run on a treadmill by a potentially game-changing 13 percent.



"The study provides one of the most compelling examples of 'metabolic symbiosis' between the human host and microbiome that could be broadly harnessed as a probiotic strategy not only for athletes but also to improve health in patients," concluded study coauthor George Church, PhD, a professor of health sciences and technology at Harvard University and MIT and leader of the Wyss Institute's Synthetic Biology platform.

Scheiman and colleagues then launched a startup company, Fitbiomics, to boldly enter what they call "the new frontier of fitness." In 2021, Fitbiomics unveiled Nella, a probiotic pill derived from elite athletes to provide "next-generation wellness for everyone." Other such probiotics are also debuting, backed by their own research. In fact, the flurry of flora now on store shelves would fall under what the UC Davis's Eisen has dubbed "microbiomania."

Most of the research to date agrees that the gut microbiome and exercise have an intimate and symbiotic relationship. But if there's one consistent finding, it's that studies pinpoint *different* bacteria in the microbiomes of *different* types of athletes.

This raises a larger question: Do we even know for sure what a healthy, "normal" human microbiome comprises?

A decade on, the American Gut Project continues its work, now as the Microsetta Initiative, but with trillions of bacteria to map, the science remains in its infancy. And neither the chicken-egg cycle nor causation are fully understood.

Functional-medicine trailblazer Frank Lipman, MD, warns that our understanding of the microbiome has a long way to go. "You can't take *this* probiotic for *this* result. People simplify the microbiome; it's such a complicated organ system."

Others caution against expecting the microbiome to unleash true athletic superpowers. Old Dominion University exercise science professor Patrick Wilson, PhD, RD, author of *The Athlete's Gut*, contends that the various studies so far are small and "the mechanisms to explain these supposed improvements in performance are pretty speculative."

At this stage, the athlete's microbiome remains a frontier — and it's likely that we don't even know what we don't know.

MICHAEL DREGNI is an *Experience Life* deputy editor.

FEED YOUR GUT

WHEN WE THINK of athleticism, we tend to think of powerful muscles, a strong heart, and mental smarts. But we may not be thinking small enough: A multitude of studies have found that a diverse microbiota in our gut feeds our performance.

In addition, the microbiome can boost performance in other ways, such as keeping you from getting sick and missing out on training. "It may seem odd that bugs in your gut can impact your respiratory tract, but the presence of certain microorganisms in your gut leads to an uptick in the production and activity of immune cells and compounds that offer protection from respiratory infections," notes Patrick Wilson, PhD, RD, author of *The Athlete's Gut*. This, in turn, can improve your availability — the amount of time you're fit to train and compete.

Experts offer advice on how you can keep your gut in top form.

Eat plenty of plants. "Building the foundation of your diet on plants is key for building the best foundation for good health and optimum performance," says exercise physiologist and nutrition scientist Stacy Sims, MSC, PhD.

The more plant types a person eats, the higher the microbial diversity of their gut, noted the American Gut Project, now called the Microsetta Initiative. A plant-centric diet is anti-inflammatory and good for your gut, aiding digestion and providing lots of fiber.

It also helps balance hormones. The microbiome is "so instrumental in managing sex hormones that recent research has suggested the concept of a 'microgenderome' to indicate the interplay between the gut microbiome and sex hormones," Sims says.

Prioritize protein. Athletes need sufficient protein to build and maintain muscles, Sims says. (For advice on how much protein you may need, see ELmag.com/proteinpower; for sources of plant-based protein, see ELmag.com/plantprotein.)

Get your probiotics. While there are still questions about how probiotics may affect your athletic performance, it's clear that

the healthy bacteria in probiotic foods are good for your microbiome as a whole. The best sources are fermented foods, such as yogurt, kimchi, sauerkraut, and kefir.

You can also supplement with probiotic capsules, which contain billions of live bacteria. "Probiotic supplements are sources of microorganisms that can shift the microbial balance of the lower intestine," explains Paul Kriegler, RD, Life Time's nutrition program manager.

Whichever probiotic you choose, Wilson advises a trial period of at least one to two weeks prior to a competition to make certain it doesn't cause unwanted side effects, such as gas, bloating, or loose stools. (For more on probiotic foods and supplements, see ELmag.com/probiotics.)

Feed the bacteria with prebiotics. Ample fiber is key to feeding those healthy bacteria. Prebiotic foods include apples, asparagus, onions, garlic, leeks, oatmeal, and legumes. (For more on prebiotics, see ELmag.com/prebiotics; for more on fiber, see ELmag.com/fiber.)

Just say no to ultraprocessed foods. Those irresistible, lab-engineered processed foods don't help your athleticism at all. Refined sugary foods promote bad bacteria, which can lead to inflammation, Sims explains.

Processed foods contain fewer nutrients and can hamper your immune system. Recent research suggests they can also promote anxiety, depression, and other mental health concerns.

Skip the NSAIDs. "Nonsteroidal anti-inflammatory drugs can directly impact the composition and function of the gut microbiota, and can lead to dysbiosis, or an imbalance of microorganisms in our microbiome," says Sims.

Be careful with antibiotics. Antibiotics can dramatically harm the gut's microbial diversity, according to the Microsetta Initiative. And we often unknowingly consume antibiotics in the meat we eat, a good reason to opt for organic meats.

SOOTHE YOUR GUT

MOST ATHLETES occasionally experience some sort of gut problems during training or competition, says Patrick Wilson, PhD, RD. Nausea, abdominal cramping, bloating, diarrhea — any one of these "can quickly kill a solid performance."

"Gut issues can be caused by a wide variety of different things, and I'd advocate for trying to identify the underlying cause," he advises.

If you're dealing with gut dysbiosis — disruption of the gut microbiome — none of our experts recommend a fecal transplant. Rather, they focus on several common causes, along with mitigation strategies.

Race-day indigestion: As running legend Bill Rodgers once famously warned, "More marathons are won or lost in the porta-toilets than at the dinner table!" When you compete, your body typically shuts down your digestive system and diverts the energy to powering your limbs and muscles. The reduction of blood flow to the gut can cause tummy troubles, from mild to dramatic — side stitches, diarrhea, reflux, nausea, and more.

You can strive to prevent this with several simple tactics:

- Eat only familiar foods leading up to an event.
- Don't eat for an hour or two before a race.
- Keep well hydrated but consume sugary sports drinks or energy gels in moderation.

"Most people feel best limiting their intake to liquids or low-fiber foods within two hours of the start of an exercise session," explains Life Time master trainer and dietitian Samantha McKinney, RDN, LD. "Using something like essential amino acids — which are the building blocks to protein and easily digested — can be helpful. If you know you're going to need to eat, try having nut butter on either a banana or rice cake. Anything heavy or higher in fiber can cause distress during exercise."

Food reactivity: A food intolerance, sensitivity, or allergy can disrupt your whole life, not just a 5K race. Food reactivity can cause diarrhea or constipation, gas and bloating, irritable bowel syndrome, leaky-gut syndrome, and more.

Testing can determine food reactivity, and an elimination diet is one strategy that could help put your system back on track. Over-the-counter digestive enzymes can also help. (For more on food reactivity, see ELmag.com/foodreactivity.)

Bacterial infection: Bacterial invaders from contaminated water or food or a virus can disrupt the best-laid training plans. Check with your healthcare provider to determine whether it's food poisoning. Often, you will have to wait for your system to purge the bad bugs. Keep well hydrated.

Anxiety or stress: Stress can stem from your daily life or, ironically, the thrill of a race. "Exercise is considered a 'good' stress, but if you're living a stressed-out lifestyle and adding in high-intensity exercise, it's possible to get too much of a good thing," explains McKinney. "An overload of stress can cause imbalances in cortisol, which can trigger digestive upset."

"For someone with anxiety and gut issues, engaging in activities that incorporate mindfulness and stress reduction may be helpful," Wilson adds. Deep breathing, listening to music, or mindfulness meditation; acupuncture or hypnosis; or sessions of cognitive behavioral therapy may help.


GLUTEN?

It's Complicated . . .

Learn about the latest research on gluten sensitivity.

BY **MO PERRY**

During her annual physical in October 2021, Carin Bratlie Wethern had some routine bloodwork done. A few days later, her doctor gave her a call: Wethern's iron levels were abnormally low. She started taking iron supplements, but when levels didn't rise much in response, her doctor decided to run some more tests.

Wethern, a theater director and child-sleep coach in Minneapolis, was shocked when she tested positive for antibodies indicating she had celiac disease, a chronic digestive and immune disorder triggered by eating foods containing gluten.

"I was like, 'What are you talking about, celiac? I love bread. I eat bread all the time, and I feel fine,'" Wethern recalls. But an endoscopy revealing damaged villi in her digestive tract confirmed the diagnosis. Wethern's days of consuming gluten were over.

Gluten is a protein found in some grains, such as wheat, barley, and rye. It contains a variety of indigestible fragments (or peptides) that can stimulate a strong immunological response in genetically susceptible people.

For those with celiac disease, gluten sets off an autoimmune reaction that can destroy the villi — the tiny fingerlike projections that line the small intestine. Celiac can lead to iron deficiency, a form of anemia, because the part of the intestine damaged by gluten is also responsible for iron absorption.

"I've always prided myself on being an enthusiastic eater of foods of all kinds. Now I can't be that person anymore," Wethern says. "It's really heartbreaking."

Still, it beats the alternative. If left unaddressed, celiac disease can lead to the development of other autoimmune disorders, like type 1 diabetes and multiple sclerosis, as well as other health conditions, such as anemia, osteoporosis, infertility, epilepsy, migraines, heart disease, and intestinal cancer.

THE RISE IN CELIAC DISEASE

Serology-based prevalence studies report that between 1 and 2 percent of the global population has celiac disease, though many of these cases remain undiagnosed. Distribution is fairly equitable across the continents, with marginally higher prevalences in Europe and Asia.

The disease tends to affect women more often than men and children more often than adults. According to the Celiac Disease Foundation, rates have been increasing by about 7.5 percent per year for several decades.

"The increase in celiac disease is partially due to the increase in awareness and testing, but there has also

been a true increase in the prevalence over time," says Alessio Fasano, MD, director of the Center for Celiac Research and Treatment at Massachusetts General Hospital and author of *Gluten Freedom*. "The incidence is doubling every 15 years."

What's behind this rise?

"We don't know, but it's likely because we're derailing from evolution's plan in terms of having friendly interactions with the ecosystem — the soil, air, and water," Fasano explains. "Chemical pollution and other factors impinge on our gut microbiome, which determines if, when, and why our genes are put into motion."

Celiac does have a genetic component, but not everyone with the genes for it develops the condition. Up to 30 percent of us carry a gene that puts us at greater risk, though it only increases the risk from 1 percent (the risk for the general population) to 3 percent. The likelihood of developing celiac does go up substantially for those who have a parent, sibling, or child with the disease.

Onset can occur during childhood or adulthood. Children are more likely to have digestive symptoms, such as abdominal bloating and pain, diarrhea, constipation, or nausea. Adults with celiac may also display these symptoms or others, such as fatigue, brain fog, headaches, depression, anxiety, skin rashes, or joint pain. Some, like Wethern, don't notice any symptoms at all.

People with celiac disease produce antibodies called anti-tissue transglutaminase antibodies. "Transglutaminases are enzymes that help bind proteins together and are also involved in the digestion of wheat in the gut," explains functional-medicine practitioner and clinical researcher Datis Kharrazian, PhD, DC, MS, FACN, author of *Why Isn't My Brain Working?*.

In people with celiac, gluten triggers immune reactivity to the type of this enzyme that's located in the intestinal lining. For this reason, gluten must be strictly avoided for the rest of the person's life or symptoms will recur.

NON-CELIAC GLUTEN SENSITIVITY

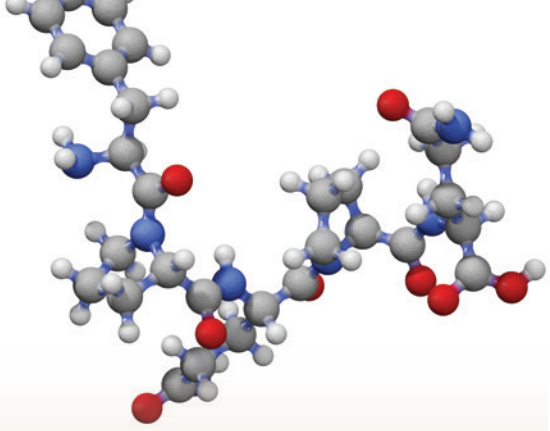
To make matters more complicated, someone may be sensitive to gluten without developing full-blown celiac disease.

Gluten sensitivity occurs on a spectrum, with celiac representing the most severe end. On the other, there's non-celiac gluten sensitivity, which can range from mild to intense. "We're seeing dramatic increases in the number of people sensitive to gluten in the United States," Kharrazian says. "Research shows gluten sensitivity has risen sharply in the last 50 years."

So, what's the difference between celiac and gluten sensitivity? "Patients with gluten sensitivity develop an adverse reaction when eating gluten that does not usually lead to small-intestinal damage," Fasano explains.

While there can be overlap with some of the symptoms of celiac, the overall clinical picture of non-celiac gluten sensitivity is generally less severe. "Non-celiac gluten sensitivity is a pretty mysterious space we occupy, in which people experience symptoms that go away or are improved when they eliminate gluten," says functional nutritionist Jesse Haas, CNS, LN. "That data may be validated by lab testing, but it's not always measurable in an immune reaction, which makes it kind of hard for the general public — or even the medical establishment — to trust that it's valid."

Like celiac disease, a non-celiac gluten sensitivity triggers a reaction from the immune system. The difference is that when someone with a sensitivity eats gluten, their immune



> The increase in celiac disease is partially due to the increase in awareness and testing, **but there has also been a true increase in the prevalence over time."**

system doesn't attack the villi in the small intestine; it goes after the gluten molecules themselves, producing specific immunoglobulin G (IgG) antibodies to combat them. Many tests claim to identify sensitivities by testing for IgG antibodies. But false positives are common, and a test may indicate that someone is creating IgG antibodies against a food that isn't causing any negative reactions.

"We and many others are working diligently to identify the biomarkers that will tell us if you have gluten sensitivity or you do not," Fasano says. "We have these biomarkers for celiac disease; we have biomarkers for allergies; but we don't have them yet for non-celiac gluten sensitivity."

For now, the most reliable approach is to observe the effects of gluten — and its absence — on the body. "We have to show a relationship between exposure and symptoms," Fasano says. "When you have gluten, you get worse. When gluten is out of your system, you get better. That's how we make the diagnosis of non-celiac gluten sensitivity."

Signs of gluten sensitivity can be broad, including symptoms of systemic inflammation, such as joint pain, rashes, and fatigue. "It can also be ambiguous mental health symptoms like brain fog or memory challenges, depression, anxiety, or even neurological symptoms — there are reports of seizure disorders being resolved on gluten-free diets," says Haas. (For more on checking your gluten sensitivity, see "How to Conduct a Gluten Experiment" on page 67).

For people without celiac disease, gluten sensitivity can change over time, Fasano notes. "With non-celiac gluten sensitivity, there is a possibility you may eventually change the level of sensitivity to gluten or even grow out of it. This is not the case with celiac disease, which is a lifelong condition."

Haas ate a strict gluten-free diet for eight years to address her own digestive issues. But for the past few years, she's been eating gluten-containing foods a few times a week, with far less reactivity than she experienced in her 20s.

"If you can address intestinal permeability, shore up the boundaries of the small intestine, and improve its ability to digest and absorb nutrients, then it's less impactful when you eat the same foods that gave you trouble before, as long as you're not eating them to such a great extent," Haas explains. "It's about improving the resilience of your system overall."

Unfortunately, there's no wiggle room for those with celiac disease. They will likely need to avoid gluten permanently, Kharrazian says, as well as foods that are cross-reactive. (The body's immune system can confuse cross-reactive foods for gluten; they include corn, oats, dairy, rice, and yeast.)

People with autoimmune conditions may also do well to steer clear of gluten for the long term. (More on this later.)

THE GLUTEN–INFLAMMATION CONNECTION

Gluten-containing foods are removed during almost any food-elimination protocol. This is because even if someone isn't technically sensitive to gluten, the protein can still contribute to inflammation.

Eating gluten triggers a specific inflammatory process in the small intestine called the zonulin pathway, Haas explains. Zonulin is the protein that regulates the opening and closing of the intestinal barrier. This protein plays a leading role in the development of leaky gut — and gluten sparks its release.

When food particles slip between the loosened junctions of the gut lining and leak into the bloodstream, the immune system is activated by the

foreign material, and inflammation results. (Learn more about leaky gut at ELmag.com/leakygutfaq.)

"If we have cereal or a bagel for breakfast, a sandwich for lunch, and pasta for dinner, that pathway is getting kicked into gear multiple times a day," says Haas. When we follow that pattern for days, weeks, and years, we can end up with chronic systemic inflammation and all the vague symptoms, such as joint pain and brain fog, that can accompany it.

The very molecular structure of gluten challenges our digestive system. Think of a protein strand as a pearl necklace, says Fasano: Our digestive enzymes break the necklace into pieces called peptides, which can be absorbed by the intestine and used as fuel or building blocks for new proteins.

Most proteins we ingest can be completely disassembled into individual amino acids. But not gluten. "While any ordinary peptide from a foodstuff other than gluten can be dismantled by intestinal enzymes within 60 minutes, those derived from gluten can resist digestion for as long as 20 hours," Fasano notes. And research has shown that our digestive enzymes can leave large fragments of gluten intact.

"This is why dairy also comes up in elimination diets, because casein (one of the proteins in dairy) has a similar vibe as gluten — they're just really [dense] molecules," Haas says. If the digestive tract is inflamed or compromised, it's harder for the body to break down these proteins.

"Eliminating them for a time makes it easier for the body to digest and absorb nutrients because the body isn't inflamed in response to the presence of those molecules in the digestive tract."

GLUTEN AND AUTOIMMUNITY

Another area of concern with gluten involves what's called molecular mimicry. Essentially, gluten's sequence of amino acids resembles that of some of the body's own tissues, particularly the thyroid gland and nervous tissue.

"When you're sensitive to gluten, the immune system produces antibodies to tag it for destruction," Kharrazian explains. "However, because gluten has amino acid sequences similar in structure to some amino acid sequences in nervous tissue, the immune system may accidentally produce antibodies to nervous tissue whenever you eat gluten."

In this case, gluten sensitivity could lead to an autoimmune attack against the brain or other parts of the nervous system. Immune reactions to gluten can also break down the blood–brain barrier, leading to what some integrative practitioners call leaky brain. The condition can allow pathogens to enter the brain and increase the risk of autoimmune reactions there and throughout the nervous system.

Because gluten can also mimic thyroid tissue, people with Hashimoto's thyroiditis (an autoimmune condition in which the immune system attacks the thyroid) may benefit from avoiding gluten as well. "Some people with Hashimoto's have gluten sensitivity as a driving force leading to the auto-attack on the thyroid, unlike in celiac, in which everyone affected has gluten as the environmental trigger," Fasano notes.

Confidently identifying those whose autoimmune conditions will benefit from a gluten-free diet will be easier when researchers find biomarkers of non-celiac gluten sensitivity. "How gluten affects you depends on your genetic makeup and how you express inflammation and autoimmune flare-ups," Kharrazian notes. Still, "clinically, we see autoimmune patients do best avoiding gluten permanently."

GLUTEN ELIMINATION OR MODERATION?

For those who don't have an immunological reaction to gluten, is it worth keeping in their diet? "Gluten only needs to be excluded if you're clearly

Sprouted and fermented gluten-containing grains **can be easier to digest.**

part of the spectrum of gluten-related disorders," Fasano says, adding that eliminating gluten probably isn't worth the time or effort for those with no sensitivity.

Still, he advocates moderation. "A true Mediterranean diet will include gluten, but it's not the huge amount you see in the United States."

Fasano also notes that farming and food-preparation processes are factors. "You can induce an immune response and make the immune system belligerent, not just because you're exposed to the grains, but because you're also exposed to whatever comes with the grains," he says.

That may help explain why some people who have trouble with gluten in the United States find they're able to better tolerate bread and pasta abroad.

Agricultural chemicals such as glyphosate, found in the herbicide Roundup — which is widely used on wheat in the United States and is associated with leaky gut — are much more strictly regulated in Europe. And commercial bakers there typically let dough rise overnight rather than utilizing the accelerated industrial process in the United States, which doesn't give yeast a chance to dismantle some of the peptides in gluten.

Kharrazian agrees that not everyone needs to avoid gluten. "But if you have a chronic health condition, it's a factor to consider. And everyone would likely benefit from minimizing grains high in glyphosates."

Haas also encourages a moderate approach to consuming gluten — even for those who seem to tolerate it well. "Because that darn zonulin pathway is so pervasive, I don't know that eating wheat super habitually is beneficial to anyone," she says. "Variety is so important for human health, so we don't want to consume anything multiple times a day, multiple days in a row, for years on end."

Sprouted and fermented gluten-containing grains can be easier to digest. And some varieties of heritage wheat — such as Turkey Red wheat — are better tolerated due to their lower gluten content. (To learn more about heritage grains, see Elmag.com/heritagewheat.)

For many of us, the gluten question isn't black and white — or static across time and place. It's one of the many gray areas we get to occupy with awareness, flexibility, and moderation.

MO PERRY is an *Experience Life* contributing editor.

How to Conduct a Gluten Experiment

If you're wondering whether gluten is contributing to unpleasant symptoms for you, it may be time to try an experiment. Functional nutritionist Jesse Haas, CNS, LN, suggests starting with a tally of any baseline symptoms you're hoping to evaluate (fatigue, brain fog, joint pain, depression, diarrhea, for example). Then stop eating gluten-containing foods (plus oats, which can be cross-reactive with gluten) for three months.

"I think it takes three months of elimination to fully understand gluten's effects on your body. It takes a long time for those systemic symptoms and inflammation to resolve."

At the end of the three-month trial, hopefully you'll notice improved symptoms, she says. "When your energy is back, your brain is clear, your mood is stabilized, and your digestion is cool as a cucumber, then it's time to start reintroducing."

When reintroducing gluten, go for pure ingredients in large doses to maximize the feedback from your body, suggests Haas. Start by eating half a cup of cooked oats a few times a day for a couple of days. "Really make it clear to your body: *I'm eating this thing; what are you going to say about it?* Then do some self-inventory and see what you notice about your health," Haas says. "Are those symptoms the same, a little worse, a lot worse? That will tell you whether that ingredient is tolerated by your body or not."

Repeat the process with rye, then wheat, focusing on foods that contain only that single ingredient so you're not mixing variables: For example, skip the cheese and sour cream on your wheat tortilla; if you react, you'll know the cause.

What if symptoms arise upon reintroduction? "That's where we get to decide for ourselves," says Haas. "Now we know the consequences and we can decide if it's worth it, and how often. That's personalized nutrition."

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Real life

A growing body of research suggests that a practice of savoring can help us enjoy a healthier relationship with food.

— Henry Emmons, MD, and Aimee Prasek, PhD

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Explore how savoring — or thoroughly appreciating something — can improve happiness and enjoyment in many areas of life.

Your Diet on Influencing

How social-media content about others' eating habits can sabotage your own good efforts.

BY **KATIE DOHMAN**

Food diaries are nothing new. People have been using them for years to track caloric intake, adjust to a medically necessary diet, or identify allergies or triggers. But, like everything else, once food diaries went online, the concept took off.

Just googling "what I eat in a day" unleashes billions of results. The trend has especially proliferated on TikTok, where the wildly popular videos have been viewed millions of times.

These posts often feature a slim, conventionally good-looking person detailing every bite of food they consume in a given day, sometimes including meal-prep advice or recipe ideas. The dishes are aesthetically pleasing, the lighting is good, and the posts themselves may be tagged with weight-loss keywords.

The message is clear: Eat what I eat, and you can have this body.

There's something compelling about peeking behind the curtain into someone's life. But Charlotte Markey, PhD, a professor of psychology and health sciences at Rutgers University and the author of four books on body image, says it's important to realize that most of the influencers you're following online are trying to, well, influence you.

"Social media can be nefarious because it's so quick and provocative, which makes it easy to forget that it's not reality," Markey explains.

Instead, what influencers share online is often determined by what they think their audience wants to see, or by what they've agreed to endorse on behalf of brands.

It's hard to keep that in mind when you're scrolling, admits Terri Griffith, PsyD, clinical coordinator of the intensive outpatient program at the Center for Eating Disorders at Sheppard Pratt. "Many of the individuals we treat report often comparing themselves to those they see in the media, like influencers sharing daily food diaries," says Griffith. "They feel like they 'can't compare' or be 'good enough' if they don't eat like, look like, or seem as happy as what these content creators are portraying."

Even if the intention of a "what I eat in a day" post is to offer healthy inspiration, people coping with body-image issues or disordered eating may be tempted to compare their diet with someone else's and find the experience more harmful than beneficial.

And because most influencers aren't doctors or nutritionists, notes Pamela Ramos, MD, many of them — unwittingly or not — promote restrictive or otherwise unhealthy eating habits.

"Eating disorders are alive and well online," says Ramos, who currently treats people with eating disorders in an outpatient setting. "I think one of the main problems we have had within the last 15 to 20 years is that a lot of disordered behaviors have been normalized."

The experts we spoke with recommend treating this social-media content with healthy skepticism. They offer the following suggestions for resisting the lure of online diet diaries.

ILLUSTRATION: NEIL WEBB

Consider Your Sources

"Any content creator can spread information based on their opinion or personal experience, which is not necessarily credible," explains Griffith. Before you consider anyone's ideas about food and diet, you should first identify their credentials — if they have any.

It's helpful to think about the motive behind the posts, too: Influencing is a job, and many influencers get paid to promote supplements, weight-loss programs, and the like. Often, they sell these products by preying on our insecurities — namely, the need to be seen as beautiful so we can be fully loved or happy.

"The goal is to get better at telling yourself, *Just because their job is to look good and convince me that I need those same things to also look good doesn't mean it's true,*" Ramos says. "But it takes a fair amount of self-awareness to push back against those really polished messages."

Know Your Needs

Most nutritional recommendations are one-size-fits-all, but the truth is that everyone has different dietary needs — in part because of individual differences in our genes, which affect (and are affected by) our food choices. This is one reason why someone else's weight-loss strategy may not work for you, or why you feel good after drinking coffee while your best friend feels better avoiding caffeine. Basing your own diet on someone else's food diary can make it more difficult to honor your body's unique needs. (For more on bio-unique nutritional requirements, see ELmag.com/nutrigenomics.)

Separate Food From Appearance

One of the more misleading aspects of "what I eat in a day" posts is that they invite viewers to associate those dietary choices with the thin, fit body promoting them. But it's misleading to suggest that eating the same diet will make you look like your favorite influencer, Markey explains.

"We could eat the same thing and we'd all look different," she says. "We're genetically programmed to be a certain size and shape and height. Our behaviors and environments affect that to some extent, but not as much as some people think."

Stay Empowered

To avoid going down an internet rabbit hole that can harm your self-worth or negatively impact your dietary choices, remember that you're the one in charge of your social-media experience, says Griffith. You can turn your phone off, limit the time you spend on certain platforms, stop following people who damage your self-esteem, or mute harmful hashtags. (For more advice on building a healthier social-media feed, see ELmag.com/socialmedia.)

See the Big Picture

There's a deep social need that we neglect when we think about food as simply a sum of calories, or when we try to contort our body's needs to fit the illusion of someone else's life. We miss out on the many other things that food can offer us: pleasure, energy, celebration, connection to our own history and ancestors, knowledge of other cultures, as well as tradition and communion with our loved ones.

"Food is so much more than health and weight," Ramos says, "and we tend to forget that."

KATIE DOHMAN is a writer in St. Paul, Minn.

KIDS AND ONLINE FOOD CONTENT

While it's hard enough for adults to resist the allure of online diet advice, the challenges for kids can be even greater. These experts offer thoughts for talking to your children about what they're seeing on social media.

START THE CONVERSATION.
Terri Griffith, PsyD, tells parents to invite children to open up about what they're seeing online without judging their choices; kids are likely to shut down emotionally if they are shamed or forced off social media without a conversation.

"It's about creating space for communication and education," says Charlotte Markey, PhD. And communication must happen before you can set any effective boundaries.

MODEL HEALTHY BEHAVIOR.
Be willing to examine your own habits and consider what your kids are absorbing from your behavior, Griffith advises. Ask yourself if you are consuming lots of weight-loss advice or if you're hyperfocused on diet.

"If so, being a better example for your children to model can be just as important as what you say to them," she says.

WATCH YOUR LANGUAGE.
Most of us could stand to retool our language when discussing food and diet. "We need to stop saying, 'This food is healthy and this food is not healthy,'" says Pamela Ramos, MD.

Instead, focus on moderation and balance, and use a calm tone and neutral language to talk about food choices. Fruit juice isn't necessarily bad, for example, but Ramos argues that drinking 10 juice boxes in a row won't make you feel good.

TEACH SKEPTICISM EARLY.
Talking with your kids about social media sooner rather than later is crucial, says Markey. When your child starts using their first phone or iPad, "it's the optimal time to sit down with them and use social media while you're supervising them and having a conversation," she advises. "Ask your kids, 'Do you think that's good advice?' or 'Doesn't that look like it's fake?' Model questioning from the get-go so they learn to approach social media with skepticism, and so they can see that while this may be entertaining, it might not be real or reliable."

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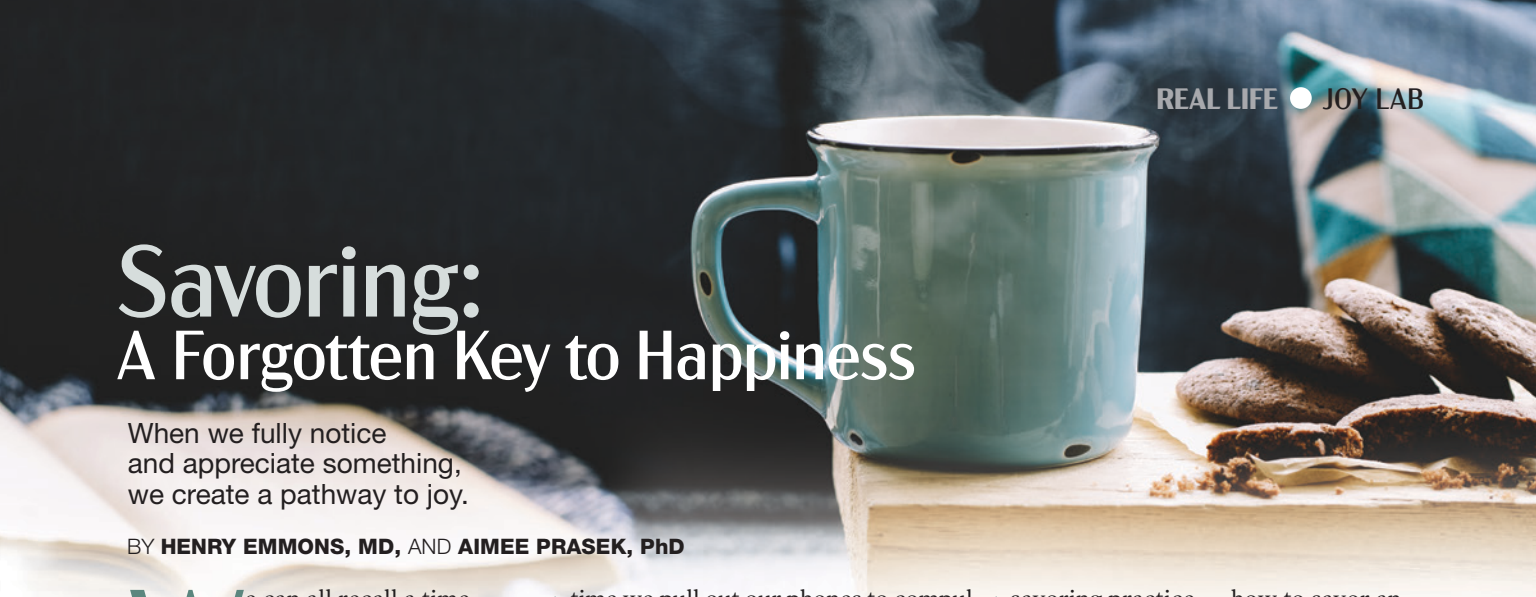

Savoring:
A Forgotten Key to Happiness

When we fully notice and appreciate something, we create a pathway to joy.

BY **HENRY EMMONS, MD,** AND **AIMEE PRASEK, PhD**

We can all recall a time when we paused to truly appreciate a person, a meal, a sunrise or sunset. This is savoring, and it involves being aware of something — and getting real pleasure from it. But most of us don't do it often enough.

It's easy to dismiss savoring as somehow beneath other elements of joy, such as gratitude and compassion. Yet we have come to believe otherwise, and we hope to persuade you to make more time to savor life.

The Dopamine Problem

Dopamine is one of the brain chemicals that regulates our mood; it's known as the "pleasure chemical." Whenever we experience pleasure, we get a dopamine boost, which puts us in a good mood.

Correspondingly, if dopamine levels drop, our mood drops. Some forms of depression feature a profound loss of pleasure (called anhedonia) and the dopamine system is usually involved.

Dopamine is also closely tied to motivation. The brain is oriented toward things that provide pleasure, and our neurochemicals line up to help us get those things. It's as if dopamine says, "Ooh, that was good! I want more of that."

This worked wonderfully when our ancestors and their brains were evolving; resources were scarce, so there was little danger of anyone overdoing the good things available to them. Now, we're surrounded by things that can provide dopamine hits that aren't necessarily healthy.

Most of us even carry a small dopamine dispensary in our pockets: Every time we pull out our phones to compulsively check social media or our news feeds or do a little online shopping, we get another hit of dopamine.

Unfortunately, there isn't really a good shutoff valve for pleasure. As far as our brains are concerned, the more pleasure — the more dopamine — the better. And this is the bedrock of many addictions: The more intense and short-lived the pleasure, the stronger the brain's drive to get more of it. This impulse is built into our neural networks.

We're often guided to use willpower to tame our impulses, but willpower is a finite resource. None of us has enough of it to resist all the short-term pleasures bidding for our attention.

And that is exactly where savoring comes in.

The Savoring Solution

A growing body of research suggests that a practice of savoring can help us enjoy a healthier relationship with food — with positive effects on both what and how much we eat.

But recent studies indicate that the benefits of savoring go far beyond that relationship. Savoring can help protect soldiers from the trauma of combat. It's been associated with increased well-being. It can assist with recovery from a range of addictions.

And research on the neuropsychology of savoring suggests it can produce a measurable and lasting impact, enough to increase our neural response to future positive experiences. In one study, researchers trained a group of participants in a simple savoring practice — how to savor an image — while a control group received no training. Both groups viewed the same images, but the savoring group rated them as more pleasant than the control group did. They also showed increased activity in the emotional-arousal area of their brains.

The researchers then asked both groups to view another set of images 20 minutes later without any savoring instructions. The new batch included some positive images from the first viewing, and this time the savoring group rated them as more pleasant than they had earlier.

This is subtle, but important. It shows that in just those few moments, those subjects were able to train their brains to attend to something, appreciate it more, and enhance its impact for them. It created, at least in the short term, a lasting impact.

We can do this daily. Just pick one thing to savor that shows up in your daily life. It might be your morning coffee, the sunrise, the walk you take after dinner. When you notice or experience it the next day, it may offer a positive boost — without you doing a thing. Those areas of the brain will be activated just by seeing or doing it again.

This is how you can make your life sweeter — not by changing anything, but by appreciating what is already there.

HENRY EMMONS, MD, is an integrative psychiatrist and cofounder of Natural Mental Health. He is the author of *The Chemistry of Joy*, *The Chemistry of Calm*, and *Staying Sharp*. **AIMEE PRASEK, PhD,** is an integrative-therapies researcher and CEO of Natural Mental Health.

Reframing Your Grocery Budget

Buying healthy groceries certainly seems to make more of a dent in the budget than it used to. One expert offers advice for taking a fresh look at your food expenses.

BY **JON SPAYDE**

Inflation is often felt most intensely in the kitchen. By the end of 2022, we had all witnessed grocery prices rise by an average of about 12 percent over the previous 12 months, according to the U.S. Department of Agriculture. And some staple foods rose even higher: The price of milk climbed 12.5 percent; flour, 23.4 percent; and eggs, 59.9 percent.

This can leave those of us committed to healthy eating with plenty of questions: Will we need to give up healthy grocery options, which are often pricey? Or can healthy also be affordable? What nutritional value are we getting when we buy a given food at a given price? Can we adjust our expectations about what food should cost?

Paul Kriegler, RDN, LDN, Life Time's director of nutritional products, has some suggestions, along with tips for inflation-proofing your healthy-eating goals.

Stress Sources

Grocery money just doesn't go as far as it used to. We may be accustomed to buying relatively inexpensive groceries, and the fact that food is now eating up more of our budget may cause feelings of resentment and anxiety.

It feels like healthy food has become a luxury we can't justify. Healthier food has the reputation of being pricey. Because organic produce is usually more expensive than nonorganic, for example, should we buy conventional for the sake of saving some money? What about high-quality protein, like grassfed beef or free-range chicken?

Trying to balance health and cost is confusing. There must be ways, we think, to keep from "surrendering" to cheap, filling, unhealthy meal options while still keeping our grocery costs reasonable. But what are these solutions, and are they realistic?

PHOTO: TERRY BRENNAN

Strategies for Success

Experiment. It's easy to think of rising grocery costs as a struggle, Kriegler admits. But he suggests that we instead choose to see inflationary pressure as an interesting opportunity to try out new strategies in the kitchen, like meal planning, trying new foods, and being more mindful about food waste.

Reconsider other expenses. "When I coach someone on improving their nutrition," Kriegler says, "I ask them to write down the three things they spend the most on that are making it harder to reach their goals." Is it possible for you to reallocate that money?

Even small shifts can make a difference over time, he notes. "How about that daily $5 latte at the coffee shop? Letting it go or brewing coffee at home can add money to your healthy-grocery fund."

Prioritize protein. Accept the fact that healthy eating involves purchasing some relatively expensive foods. So, where should we direct our dollars to make the most of what we can afford?

"It makes sense to center your meals around what's going to do the best job of keeping you full," Kriegler says. "That's protein, which is also the highest-cost component of the meal."

Organic, pasture-raised meat and eggs are some of the pricier selections at the supermarket, "but they're some of the most nutrient-dense foods you can eat," he explains. "They're highly satiating, so they manage your hunger better than almost anything else in the grocery store."

Plant-based proteins — think beans, lentils, and whole grains — are often less expensive than animal products. And aside from saving you dough, they can confer a host of other health benefits. (Learn more about the protein power of plants at ELmag.com/plantprotein.)

Fill up on produce. You can make healthy, frugal meals with high-quality protein, especially if you round out the meal with less-expensive vegetables and fruits. "You could have three eggs with salsa for breakfast, along with a banana," Kriegler says. "That's going to come in under $2.50, even if you're buying pasture-raised eggs for $7 a carton. The nutrient density and the satiety of your meals can be very high, even at a relatively low cost."

Many vegetables and fruits are also excellent sources of dietary fiber, which helps you feel full longer and is crucial for healthy digestion. (For more on why to focus on fiber in your diet, see ELmag.com/fiber.)

Buy in bulk — and avoid highly processed foods. Buy nutrient-dense foods in greater bulk and stay away from overly processed or precut options whenever possible. "With poultry, for example, you can buy skin-on, bone-in," he says. "That will make much more delicious meals than boneless and skinless, which is convenient but always more expensive."

Plus, you can use the chicken bones to make your own bone broth, providing the base for your next meal for much less than you would pay for a carton of bone broth at the store. (Never made bone broth? Try our recipe at ELmag.com/bonebroth.)

You don't have to buy everything organic to eat healthy.

Buy frozen. Many who value healthy eating assume that they should only consume fresh produce, but Kriegler gives a thumbs-up to the typically less expensive frozen options, which are often equally nutritious. "Out-of-season produce in the fresh-produce section may have been grown in California or Mexico or even Chile, then trucked or flown thousands of miles, all the while losing nutrients," he explains. "But frozen produce is flash-frozen at the peak of ripeness."

Get smart about organic foods. You don't have to buy everything organic to eat healthy. Picking and choosing which organic items make your list will shave some dollars off your grocery bill. Kriegler recommends consulting the Environmental Working Group's Dirty Dozen list (the 12 types of produce you should always buy organic).

Also check the Clean Fifteen, which includes items like avocados, sweet potatoes, and pineapples. "This is produce that doesn't have to be sprayed as often, has thicker skins, or has skin we don't consume," he explains, making them good choices if you choose to buy conventional. (For a complete list of the Dirty Dozen and Clean Fifteen, see ELmag.com/dirtydozen.)

Shop outside the store. "For grassfed or grass-finished beef, you're going to pay $12 to $14 a pound in the grocery store," says Kriegler, "whereas if you go directly to a farm, you'll pay much less. If you buy beef from one of the mail-order grassfed, grass-finished companies, you'll save money and it'll be delivered to your door. These are great ways to get high-quality, nutritious food in a rising market." And community-supported agriculture has the same advantages of price and convenience for fresh, organic produce.

Plan ahead. Because you need to manage your buying and consumption to stay satiated and nourished, Kriegler emphasizes the importance of meal planning — and sticking to the list once you're in the store. "It's going to require real effort and thought to buffer ourselves against inflationary pressure, but I think doing that periodically is very healthy," he says. (For more ideas on meal planning, see ELmag.com/mealprep.)

Reframe the cost as an investment in your health. Even if you're able to implement all these strategies, eating fresh, high-quality whole foods is going to cost some money in the short term. One great way to get around that mental block is to think of the reduced healthcare costs — and improved quality of life — that all those healthy choices will bring in the long term.

JON SPAYDE is an *Experience Life* contributing writer.

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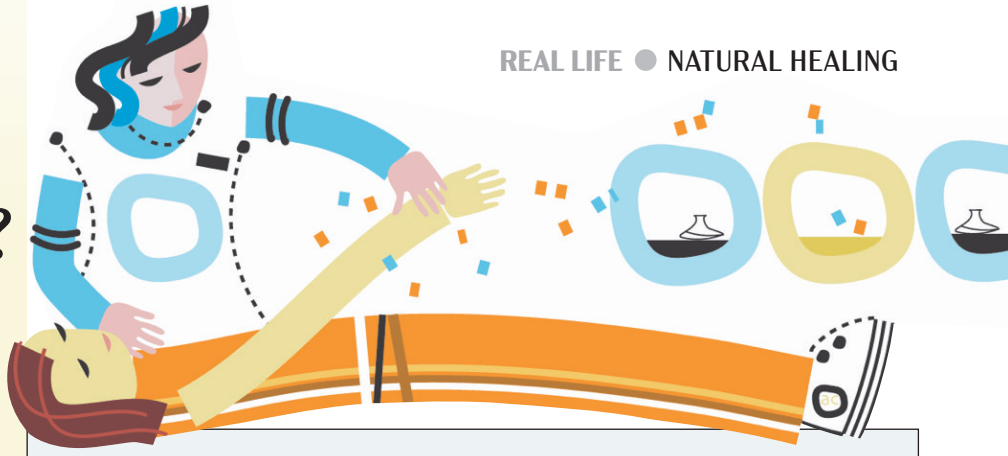
What Is Muscle Testing?

A guide to understanding the muscle tests used by kinesiology practitioners.

BY **COURTNEY HELGOE**



If you've been treated by a chiropractor trained in applied kinesiology, you may have found yourself lying on a table with your arm in the air, wondering what's going on.

This is the basic posture for applied kinesiology muscle tests, which are used to diagnose a range of issues, sometimes related to musculoskeletal structure. But if you have gut problems, muscle testing may reveal whether your body is hosting a parasite or a toxin, or responding badly to a particular food.

During a test for a food intolerance, for example, a practitioner may place a vial with a trace of the food on or near your body, then ask you to push against their hand with your raised arm. If there's no issue, your push will be strong. If there is, it will be startlingly weak.

Once you've experienced an involuntary weakness during a muscle test, there's little room for doubt that the body is trying to tell you something.

The method was developed in the early 20th century to measure muscle strength in polio patients. It was later adapted by chiropractor George J. Goodheart Jr., DC, who founded applied kinesiology, now often used in sports medicine. But Goodheart was interested in more than just muscle strength; he saw that muscles could be a communication gateway to the nervous system.

As with other biofeedback practices, critics are deeply skeptical, but the evidence base for applied kinesiology is expanding. It also often provides insight into stubborn conditions when nothing else will. Andrew Rostenberg, DC, DIBAK, founder of Red Mountain Natural Medicine in Boise, Idaho, explains how it works.

EXPERIENCE LIFE | What is muscle testing?

ANDREW ROSTENBERG | Muscle testing is a diagnostic tool that uses the body's own nervous system — a form of biofeedback — to uncover hidden problems. The human body knows what is wrong with it, but unfortunately it cannot give you a sticky note or email you with a list of what is not working correctly. It can, however, communicate through the turning on or off of muscles.

The body turns muscles on and off all the time; this allows us to move, speak, digest food, circulate blood, and breathe oxygen. This is basically the language of the central nervous system (CNS). By using muscle testing, a properly trained doctor can access an enormous amount of information about the patient that is unavailable through other means.

EL | What sort of conditions can muscle testing help identify?

AR | A weak muscle might be caused by trauma to the muscle. A weak muscle might be caused by an infection in the large or small intestine. A weak muscle might be caused by estrogen dominance and low progesterone. There are many internal imbalances that will show up on the outside of the body as a weak muscle.

EL | What exactly is the role of the central nervous system?

AR | When you test a muscle with applied kinesiology, you are examining the CNS, since it is in control of when muscles turn on and off. A muscle turning on or off is the final output of many different pathways — hormones, toxins, hydration, sleep, stress, nutrition, electromagnetics, and so on. Muscle testing is able to pick up on disturbances in all the different body systems.

EL | What is the connection between muscle weakness and a food sensitivity?

AR | During a muscle test, if a strong muscle weakens when a patient puts gluten or dairy in their mouth, it indicates that the body treats these foods more like toxins. This is how the CNS responds to something that is "negative" for the body. Any weakness you see on the muscle test is caused by the CNS answering the question "Is this food good for me?" It can only answer yes or no, "on" or "off." If that food is neither good nor bad for you, the muscle will not weaken.

EL | What, if any, safety issues are there to consider?

AR | Manual muscle testing is safe. The only contraindication is to avoid testing areas of the body that are injured, as this will always yield inaccurate results from the CNS. You can't muscle test accurately if the person is in pain while doing the movement.

EL | Practitioners sometimes test two different supplements at varying distances from the body. Is the body's energy field involved here?

AR | The nervous system doesn't stop processing information at the edge of our body: We take in information from our environment. Our CNS looks at the horizon, the sky, people walking toward us; it scans the room for threats and can identify them from a pretty long distance.

It is the same system we use with muscle testing. The CNS sensory processing that gives you goosebumps when someone stares at you from across the street is able to discern if a supplement or substance is effective from a distance. The greater the distance, the greater the positive (or negative) reaction.

COURTNEY HELGOE is the *Experience Life* features editor.

ILLUSTRATION: ANDREA COBB

Pasture-ized

For your next vacation, check out the rural pleasures of an agritourism farm to get in touch with the land — and to better understand the sources of your food.

BY **JILL PATTON, FMCHC**

Hannah Bernhardt lifts one end of a red metal gate and swings it away from the fence line, creating a narrow, sharp-turn passage between two paddocks on her farm. It's sometimes tricky to get her flock of sheep to maneuver this bend that connects this pasture to the hillside where she wants them to graze next.

She calls out a high-pitched "Sheep — c'mon, sheeeeeep!"

My 15-year-old daughter, Frances, and I laugh nervously and take a step back, but the only animals to respond are three specially bred livestock-guardian dogs. These large, fluffy canines with deep, protective barks defend Bernhardt's sheep from the coyotes, wolves, black bears, bobcats, and cougars that prowl the range.

She sings for her sheep again.

"They're being a little slow today," she explains, giving the largest dog, Griffin, a scratch on the head.

This time, the mass of wool at the far end of the paddock breaks into 50 trotting, bleating sheep heading straight toward us.

Sure enough, as they get to the complicated turn, they hesitate. Bernhardt and the dogs demonstrate where to go, and all but a handful scuttle through and head up the hill toward fresh grass.

Frances and I are at Medicine Creek Farm in northeastern Minnesota for some rural R & R. Frances wants to hang out with the animals, and I'm eager to see what life is like on a working farm.

The accommodations are hardly rustic: Our well-appointed two-bedroom apartment, complete with a full kitchen and board games, occupies the ground floor of a hand-reconstructed, 1880s-era timber-frame barn. Bernhardt's husband, Jason Misik, relocated the barn board by board from a farm in southern Minnesota.

Bernhardt is a generous host with a benevolent ulterior motive. In addition to hoping we'll reap therapeutic benefits from our pastoral "farm stay," she wants us to take away a deeper understanding of our food's origins.

Key to this is recognizing the importance of regenerative-farming practices that improve the health of the soil — and the nutritional quality of our food.

Back to the Land

Medicine Creek Farm is among a growing number of small to midsize farms and ranches across the country drawing visitors for a taste of agrarian life. The umbrella term "agritourism" refers to a wide range of experiences people can enjoy, including berry and apple picking, corn mazes and hayrides, winery tours and dude-ranch getaways, as well as living-history farm tours.

Some farms even offer homestay opportunities through organizations like Worldwide Opportunities on Organic Farms (WWOOF), exchanging lodging for farm work.

Agritourism is a growing segment of the tourism industry, with revenues more than tripling between 2002 and 2017, according to data from the U.S. Census of Agriculture.

The forces behind this boom are practical as well as ideological. The economics of small-scale, local farming in an era of consolidated, industrial food production have made agritourism a lifeline for these farms.

It also helps farmers — especially those interested in connecting consumers more deeply to their food

sources — make a strong case for supporting local, environmentally responsible farms.

"We're farming *with* nature," Bernhardt explains. "For livestock, we're lambing or calving in the spring and harvesting most of our animals in the fall. So, there's a time of year when we don't have a lot of income, and having people here throughout the summer is a way to keep cash flow coming in."

Agritourist spending also helps revitalize rural economies, increasing the local tax base and bringing dollars to Main Street businesses.

Supporting small-scale farmers through agritourism — and then buying directly from them when you can — has the potential to shift things on a macro level, as well.

"During the pandemic, large meat-processing plants got closed down and it backlogged the whole system," Bernhardt says. "When you're reliant on only a few companies doing all that processing, it's really dangerous. The more you can have local and regional food systems and process things regionally, the more resilient you are to any sort of disruption to supply chains."

Life on the Farm

A visit to Medicine Creek Farm usually includes a meet and greet with Bernhardt's animals: In addition to sheep and their guardian dogs, she raises pigs, cattle, and chickens. It's all part of a firsthand experience with the interconnectedness of plants, soil, animals, and humans.

As we wait in the sheep paddock for one reluctant ewe and four lambs to trot through the gate, Bernhardt points to the nibbled and trampled grasses (she estimates there are at least seven varieties) around us.

"Rotational grazing is our main soil-health practice," she explains. When bison herds once roamed nearby tallgrass prairies, they put a lot of pressure on one small area at a time. But because they were constantly on the move due to predator pressure, they were never in one place long.

Jason Misik and Hannah Bernhardt with their son, Harvey, at Medicine Creek Farm.

> Soil health is the foundation of animal health, **which is the foundation of human health."**

"The grasses evolved to respond positively to that kind of short-term impact and stress, followed by longer periods of rest and recovery."

By keeping her animals in small paddocks and moving them daily or every other day, Bernhardt gives the grassland and the soil beneath it — as well as the animals — ideal conditions in which to thrive. As the flock competes for limited grass in each paddock, her sheep ultimately eat a more diverse diet across the greater pasture, which makes them healthier.

This, in turn, translates to more nutrient-dense food for the humans who eat them. "Soil health is the foundation of animal health, which is the foundation of human health," she explains.

Farm to Heart to Plate

The less bucolic realities of raising animals for food were on my mind during this visit. (Frances's commitment to vegetarianism remains solid.) But Bernhardt loves the animals she raises and believes in providing them a stress-free life. Her pragmatic view of animal husbandry is imbued with compassion as she ensures that her animals' lives, and even their final days, remain relatively calm.

Spending time with Bernhardt made me realize how much more honest it feels to meet the animals that may someday end up on my plate than to anonymously shop the meat case at the grocery store.

"We're so disconnected from our food and where it comes from," she says. "But when you know your farmer and you get to see how your food is raised, you can see that it's not just about something printed on a label. You can see how my animals live outside and how I interact with them. I think the No. 1 thing is how stress-free their lives are."

And though the realities of running a farm aren't always idyllic for the farmer either, Bernhardt's commitment runs deep.

"Humans have really old relationships with animals, and I think people forget that," she says. When people visit her farm — and many ask to help out while they're there — they connect with what it means to feel a relationship with their food.

"This is what I want people to see," she says, gazing across the wide-open pasture. "I want people to experience this and know the same joy that I get from it."

JILL PATTON, FMCHC, is an *Experience Life* contributing editor and a certified functional-medicine health coach.

BOOK YOUR FARM STAY

Agritourism is an increasingly popular way to experience the realities of rural life. You can book a farm stay through travel sites, such as Expedia and Travelocity, or lodging sites, including Airbnb, VRBO, and Hipcamp. Or check out Farm Stay USA, Farm Stay Planet, and WWOOF for listings.

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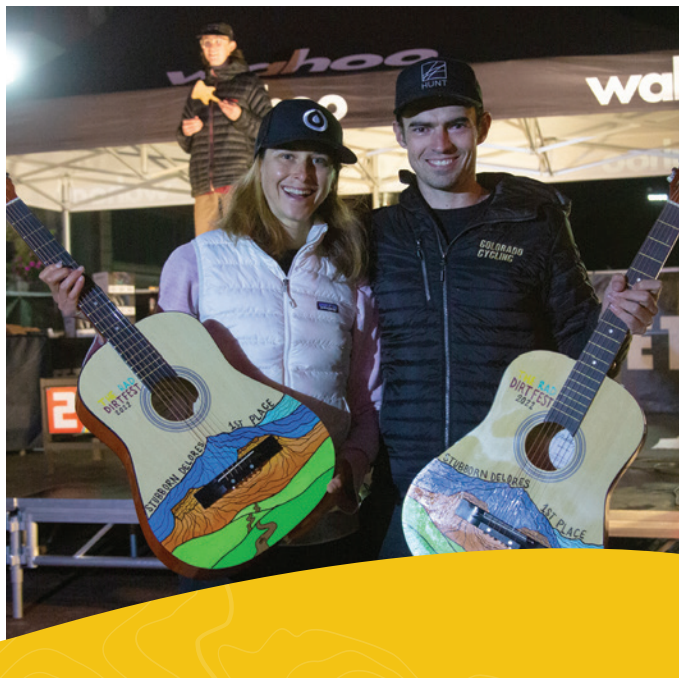

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The Spirit of a Place

BY **BAHRAM AKRADI**

There's a lot of talk these days about how we spend our time. Priorities and productivity are major threads of an ongoing cultural conversation, and we're more tuned in to how finite and valuable our time is. In fact, we seem to collectively be making an effort to use it more wisely — a welcome and necessary shift.

Yet as we reflect on *how* we spend our time, it is perhaps equally important for us to consider *where* we spend our time.

There used to be distinct lines. Our days were defined by time at work or at home, in school or at activities, in company with others or in solitude; each place had its rules and norms. Yet these have changed as the world has changed.

Especially after the last few years, many of us now recognize the profound value of certain places in our lives. Today, we may be spending our time differently — and in different spaces — than we were before.

Hybrid work schedules have shifted not only where we are but how we interact with each other. Some days we're at home, alone (*or* surrounded by kids, with little alone time); some days we're in the office. Camaraderie can feel harder to nurture.

Kids are mostly back in schools, but there are now options for remote learning. Meanwhile, attendance in many venues, including churches, has dropped, leaving many to wonder where people are going instead.

So, where *are* we spending our time? And do those places add meaning and value to our lives? These are questions we need to answer because where we are can help us discover and define who we are.

Perhaps it starts with a look at environments themselves. Places are created for various purposes: convenience, culture, education, religion, utility, commerce, community, fun. The function of a space is often considered first, followed by spatial decisions about how to fill it.

I founded Life Time as a destination offering a unique approach to improving health: a place for people to really take care of themselves and their families; a place they could look forward to visiting rather than somewhere they felt obligated to go.

From the start, it was a consciously curated experience — and it continues to be. We consider the senses: the scent of eucalyptus in the steam rooms, the natural textures and warm tones of materials, the light and warmth of the sun shining through the atria, the "hellos" emanating from the front desk.

Upon first impression, these spaces invite people in — and often take their breath away.

Yet there's something else, something that goes beyond what you see, hear, smell, and touch. It's hard to describe, but you can feel it, an energy.

The Romans coined the term genius loci, which means protective guardian or the spirit of a place. They recognized that while the materials and spatial considerations create an environment, there were certain spaces that seemed to have a soul.

In his book *Genius Loci: Towards a Phenomenology of Architecture*, architect Christian Norberg-Schulz writes, "Man dwells when he can orientate himself within and identify himself with an environment, or in short, when he experiences the environment as meaningful."

In another work, he elaborates on this concept when he explains, "To dwell means to belong to a given place" and claims that "when we identify with a place, we dedicate ourselves to a way of being in the world."

The question is, How do we identify with a place?

With respect to the wisdom of scholars and philosophers, perhaps this quote — often credited to *Black Beauty* author Anna Sewell — explains it best: "It is good people who make good places."

This is the magic of Life Time. The energy here is a true embodiment of our members and team members, who are united around common interests and shared values, yet each creating their own identity.

The result? A palpable and inevitable essence of vitality as, together, everyone becomes physically, mentally, socially, spiritually healthier. And happier. It's natural, then, that relationships begin, friendships develop, life happens.

As you think about how you spend your time — what you're doing and why — pay attention to where you find yourself: What are the places that lift you up, inspire you, unlock your potential?

Today holds the opportunity for you to seek out and spend time in places where you find passion, possibility, and purpose. Because the places we choose to inhabit can support us in becoming the best possible versions of ourselves.

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

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