HEALTHY. HAPPY. FOR REAL.

Experience Life

LIFE TIME
May 2022

Food writer and TV host **Padma Lakshmi** on the joys of eating more adventurously.
p. 16

TANGLED UP IN FOOD
How to Build Better Habits
p. 64

HYDRATION
Why This Trend Is a True Health and Fitness Essential
p. 52

ALLERGY, SENSITIVITY, OR INTOLERANCE?
A Guide to Food-Reactivity Issues
p. 58

The Food Issue!

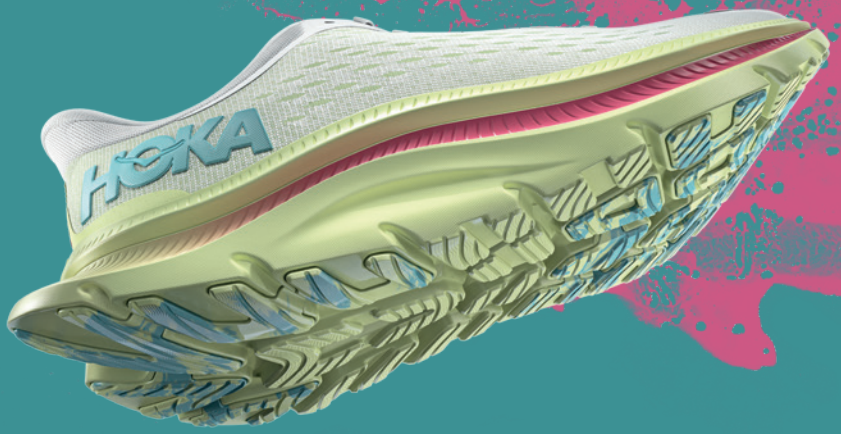
5+ Delicious (and Nutritious!) **DIPS FOR ALL THOSE VEGGIES**
p. 44

May 2022 $6.95
05
0 73917 45965 0
EXPERIENCELIFE.COM

KAWANA KAWANA KAWANA KAWANA KAWANA KAWANA

REIMAGINE THE RUN

KAWANA



HOKA®

Contents

Experience Life

May 2022

THE FOOD ISSUE

Features

52

DRINK UP!

Hydration is so good for our health that it's become a hot wellness trend. We weigh in on the hype and answer common questions about what to drink and when.

By Sarah Tuff

58

MAKING SENSE OF FOOD ALLERGIES

Allergies, sensitivities, and intolerances are types of food reactivity in the body — and they're increasing in prevalence. Discover what you can do if you deal with one (or more) of these issues.

By Mo Perry

64

TANGLED UP IN FOOD

A healthy relationship with food isn't only about what we choose to eat. It also includes our eating behaviors — especially how, when, and why we eat. Our experts identify five troublesome patterns and offer strategies to address them.

By Catherine Guthrie

In Every Issue

4 ***Experience Life*** **Digital**

7 **Editor's Note** by Jamie Martin

9 **Talk to Us**

10 **Well Informed**

Exploring the sustainability of plant-based meats; four steps to eating less sugar; the efforts to fortify kids' nutrition; and more.

16 **On the Cover**

Tastemaker

Longtime *Top Chef* host and author Padma Lakshmi shares her passion for immigrant cultures and their food stories.

By Lori Berger

20 **Learn This Skill**

Use Up That Avocado

Don't toss out this precious fruit! Instead, put an overripe avocado to use with these four ideas.

By Courtney Lewis Opdahl

22 **My Turnaround**

Building a Power Mindset

Overweight and bullied as a child, this former bodybuilder overcame multiple challenges and is now helping others.

By Cliff Edberg

85 **Worthy Goods**

87 **Perspective** by Bahram Akradi

88 **Meditation**

Volume 24, Issue 4

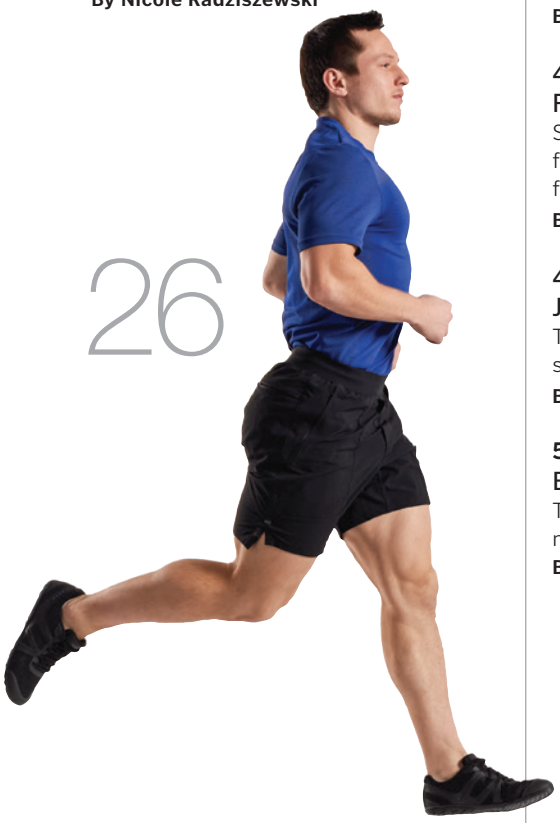
Departments

REAL FITNESS

26 The Workout
The Murph Challenge
This epic workout — 100 pull-ups, 200 pushups, and 300 squats bookended by one-mile runs — is more popular than ever. Learn how to tailor it to your unique fitness level.
By Maggie Fazeli Fard, RKC, MFT-1, Alpha

31 Break It Down
The Seated Twist
Master this move to help stretch muscles of the torso, restore spinal mobility, and support digestion.
By Maggie Fazeli Fard, RKC, MFT-1, Alpha

32 Up Your Game
Get Compressed
Compression technology, including garments and devices, manipulates your circulatory system for better athletic performance and recovery.
By Nicole Radziszewski



REAL FOOD

38 Nutrients
The Little Molecule That Could
Butyrate is a short-chain fatty acid with a big impact on overall health: It can help heal the gut, improve cognitive function, and boost immunity. Make the most of it with these nutrition strategies.
By Helen Martineau

42 Foodstuff
Food Safety at Home
Sound guidance to keep you, your family, and your guests safe from foodborne illness.
By Stephanie Soucheray

44 Confident Cook
Just Dip It
Take any party spread from swell to super with these five healthy recipes.
By Robin Asbell

51 Ingredients
Eggplant
Tips and tricks for cooking with this oft-neglected nightshade.
By Kaelyn Riley

REAL LIFE

72 Balance
Young Chefs
Expert advice on age-appropriate kitchen tasks to help nurture kids' love of cooking.
By Jill Patton, FMCHC

75 Nourished Self
Back to the Roots
Indigenous chef Sean Sherman on striving to decolonize America's idea of food.
By Dara Moskowitz Grumdahl

77 Natural Mental Health
Hops for Sleep
Often associated with beer, this plant can ease insomnia — especially sleeplessness related to nervous tension.
By Henry Emmons, MD

78 Green Space
Endangered Foods
The climate crisis is threatening many foods we love. Here's what we can do about it.
By Michael Dregni

82 Greater Good
Why CSA
Five benefits of sharing a local farm's harvest through community-supported agriculture.
By Laurel Kallenbach

Digital

CONNECT WITH US!

Mother's Day Breakfast in Bed

Make this healthy breakfast spread as a Mother's Day surprise — or anytime you want to treat someone you love. Find the recipes at **ELmag.com/mothersdaybreakfast.**

WE LOVE

RYAN DODGE,
LIFE TIME EXECUTIVE CHEF

"If it's here, it's healthy" is the motto of Life Time's LifeCafe — and Ryan Dodge, the executive chef who for 12 years has overseen all LifeCafes nationwide, takes it seriously.

Growing up in the 1980s, Dodge ate the same processed fare many of us did. "We were told, 'No butter; use margarine,' which is one molecule away from plastic," he quips. But he's always felt more in tune, culinarily speaking, with his grandparents' generation.

His maternal grandmother lived on a farm in central Nebraska, and Dodge has fond memories of her pickles, preserves, and scratch cooking. "Everything she used was naturally occurring on the farm and in nature around her," he recalls. "That's where I connected. That's where everything resonated with me."

Read more of Chef Dodge's food philosophy and his story — and find the recipe for LifeCafe's Coffee Crunch Energy Bites — at **ELmag.com/chefdodge.**

COUNTERTOP COMPOST

WIN THIS!

Transform food waste into a nutrient-rich fertilizer for your garden with the Tero food recycler. This odorless appliance uses a special drying and grinding technology that reduces your food scraps by 90 percent in just a few hours. Sign up for your chance to win it at **ELmag.com/maygiveaway.**

PURE HYDRATION™

FEWER CALORIES, NATURAL FLAVORS

Guilt-free goodness in four delicious flavors
with only 15 calories per 12oz. can.

REAL MONK FRUIT EXTRACT

O2 contains no artificial flavors or colors -
just fruit-forward freshness that pairs with any workout.

AIRY OXYGENATED LIGHTNESS

Delightful taste that dances on the tongue.
Find the fave foodies crave in the LifeCafe.

ENJOY HIGH-IMPACT HYDRATION WITH CLEAN, FRUIT-FORWARD FRESHNESS.

NON GMO Project VERIFIED

CLIMATE NEUTRAL CERTIFIED

Experience Life
BY LIFE TIME

OUR MISSION:
Empowering people to become their healthiest, happiest, most authentic selves, and supporting their enjoyment of a balanced, sustainable, deeply satisfying way of life.

OUR MANTRA:
HEALTHY. HAPPY. FOR REAL.

Founding Editor: Pilar Gerasimo

Please address all written correspondence and editorial inquiries to Managing Editor, *Experience Life*, 2145 Ford Parkway, Suite 302, St. Paul, MN 55116 or experiencelife@experiencelife.com.

PICTURE CREDITS

Cover, p. 2 (far right), and **p. 16–18:** Jeff Lipsky for foureleven.agency (photographer), Mindy Saad for Celestine Agency (wardrobe styling), Bob Scott for The Wall Group (makeup), Antonio Diaz for Bryan Bantry Agency (hair). Wardrobe: (cover) gold bangles by Jennifer Fisher, (p. 18) dress by Derek Lam 10 Crosby.

Page 4: (left) Maddie Augustin; **p. 7:** Sara Rubinstein; **p. 20:** (inset photos) Andrea D'Agosto; **p. 75:** (Sherman headshot and Owamni restaurant) Heidi Ehalt; **p. 77:** (bottom) Vik Orenstein.

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

Alliance for Audited Media

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

Confessions of an Imperfect Eater

Flip to page 64 and you'll find "Tangled Up in Food," the article that inspired this month's column. As I read — and reread — the words on those pages, I found myself relating in one way or another to each of the problem eating patterns:

- **Speed-eating.** Check. (That often happens as I squeeze in meals between meetings. I also tend to eat quickly.)
- **Night-eating syndrome.** Check. (Though this is the one I struggle with the least, it gets me on the days I'm not planful about my meals.)
- **Stress-eating.** Check. (When I'm on deadline or feeling overwhelmed, I often find myself searching out food as a coping mechanism. Cheese-and-caramel popcorn, anyone?)
- **Mindless eating.** Check. (On the road, at my desk, on the couch watching a movie — that popcorn I just mentioned somehow disappears.)
- **Secret snacking.** Check. (This is the one that I really struggled with several years ago. In fact, as I read this section of the article, I was reminded of a blog post I wrote back in 2013 about my Super Secret Snacking Behavior, or SSSB, as I referred to it. Many an empty bag of chocolate chips or jelly beans ended up buried in the trash when I was alone.)

My intent in sharing this is not to shame myself or anyone else for engaging in these behaviors. Rather, it's to remind us that we're human and there are no perfect eating patterns. Just as we can return to our breath when we find our minds wandering during meditation, we can also practice more healthful eating habits and come back to them — again and again.

Slipping does not mean we have to give up altogether or that we're a failure. In fact, it's a lesson in discovery and growth around our connections with food and our biological need for it.

In a recent email, Marc David, MA, the founder of the Institute for the Psychology of Eating and a leading mindful-eating expert (who's featured in the aforementioned article), addressed the question "Why can't I control my appetite?" His response struck me:

"When it comes to your appetite, our job is not to control it. Our job is to learn how to best be in relationship with it. . . . Being in a relationship requires that we listen, we pay attention, we get to know the person or thing that we're in relationship with. Being in a relationship is about exploration, it's about ups and downs. A relationship has challenges, successes, and ultimately, relationships are asking us to grow."

David then suggests adjusting the question to "How can I learn to be in the best possible relationship with appetite?" "When you ask the question this way, you take back your power," he explains. "It means letting go of fighting a natural and necessary function of the human race and learning to slow down, relax with food, receive pleasure and satisfaction, be present with your meal, and celebrate the eating experience. . . . This is your opportunity to be in right relationship with the beautiful wisdom of your own biology."

You'll see examples of finding connection and pleasure in relationship with food throughout this issue: in "Tastemaker," TV host and author Padma Lakshmi's cover feature (page 16); in "Young Chefs" (page 72); in "Back to the Roots" (page 75); and more.

Wherever you are in your own relationship with food, give yourself some grace and try to notice the joy. And remember: All relationships need nurturing — including the one we have with the food that nurtures us.

"Just as we can return to our breath when we find our minds wandering during meditation, **we can also practice more healthful eating habits and come back to them — again and again.**"

YOUR THOUGHTS?

Email us at experiencelife@experiencelife.com.

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.

RxSugar®

There Is No Substitute.®

- Delicious & Sweet
- Keto, Paleo and Primal Friendly
- Non-GMO Project Verified
- Gluten/Grain Free and Vegan
- Zero Net Carbs, Zero Glycemic
- Blood Sugar Friendly
- Suitable for People with Diabetes
- No Artificial Flavors or Colors
- No Preservatives
- Tastes Like Sugar, Zero Aftertaste
- Ideal for Coffee, Tea, Water, Shakes
- Perfect for Baking & Cooking
- Use on Cereal, Granola, Yogurt

The World's Best-Tasting, Keto Certified, Non-GMO Project Verified, Plant-Based Sugar & Syrup

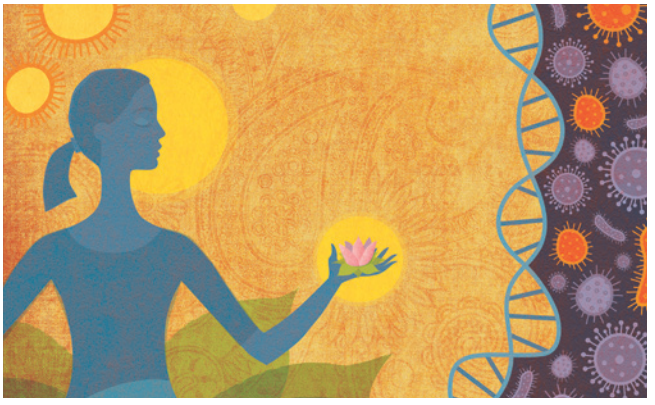
NON GMO Project VERIFIED nongmoproject.org · GRAIN FREE GLUTEN FREE · USDA ORGANIC · THIS PRODUCT IS KETO CERTIFIED · LOW FODMAP FRIENDLY · ZERO NET CARBS · VEGAN · M · K

Ideal for Baking, Cooking, Mixed Drinks, Smoothies Coffee, Yogurt & More!

Delicious • No Preservatives • No Junk • Suitable for People With Diabetes

Discover Delicious Recipes at RxSugar.com

Talk to Us



INSPIRED STORIES

I was diagnosed with MS 18 years ago, and undiagnosed Lyme disease was the trigger of my autoimmune disease. I was very sick for nine years before I started following the work of Terry Wahls, MD, and discovered that food was my medicine ("Autoimmunity Now," January/February 2022). I have made a miraculous recovery from MS and am thriving. And after developing a second autoimmune disease, Hashimoto's, from living and working in a moldy environment, I got away from the mold and am improving.
Beth S.

Maria Menounos ("The Path Forward," January/February 2022) is an inspiration to so many with such a beautiful soul!
@dinat.gram

Thank you for the great spine article ("Back on Track," January/February 2022). It was perfect timing, as I have had abdominal/breast surgery and need to rebuild and straighten my spine. Great work!
Erin G.

PANCAKE PREFERENCES

[On "The New Pancake Breakfast," January/February 2022]
Love pancakes! I'll try them with the potatoes.
Cassandra M.

Yes! I add mashed bananas in my gluten-free pancakes along with collagen powder for protein.
Cindy G.

I add crushed pineapple!
Debbie G.

PAST, PRESENT, FUTURE

Your article "The Past and Future You" (December 2021) came at a perfect time for me. I do remember sports accomplishments and working out four days a week. Now I'm almost 73 and can't stand to look in the mirror. I'm going to forget about all I used to do and start walking today. A small step but a start. Thanks for the gentle push!
Rob H.

It was inspiring to read about all the benefits of exercise as we age in this excellent article ("Made to Move," July/August 2021). Thank you for sharing your knowledge with us. Rock on!
Lauren B.

FASHIONABLE ADVICE

[On "Putting the Brakes on Ultra-fast Fashion," December 2021]
I could be a poster child for this article. I have clothes from senior year in high school that still fit me, 30-plus years later.
Maurice A.

And stop using fragrant laundry products. I'd love to buy used clothes, but they are often contaminated by fabric softeners and scented detergents. The chemicals often used to create fragrance are toxic and are a big source of air pollution.
Moving to Heal

FEEDBACK LOOP

Your article "Reactive Remedies" (October 2020) is so accurate. I believe most people's actions are controlled by triggers — especially if you have experienced any trauma in your past. And the more experiences you have in life, the less likely you are to have no triggers at all.
Christine L.

I love *Experience Life* magazine. It's an outing going to the bookstore, picking up my copy, and enjoying it with a cappuccino.
Maria S.

Love your magazine and its continual message of health and care. Keep it coming!
Nancy S.

I just want to say I am so thankful for this article ("Getting Past Chronic Pain: Michelle Sprinkle's Success Story," June 2012). I was suffering from severe SI-joint dysfunction, which was causing back and body-compensation issues, as well as pelvic-floor issues. I was hitting dead end after dead end on my attempted road to recovery and was losing hope. As a mother of two young children, I felt trapped in my body. This post gave me hope. I started one-on-one Pilates instruction and other modalities suggested here and I'm so much better and even stronger than before! Thank you for posting this! It gave me my life back.
Cat

I look forward to each *Experience Life* issue and read it cover to cover. I see articles about food, diet, weight loss, and recipes, but nothing about people who are working to *gain* weight. We live in an "overweight" society, but the issues of the underweight "hard-gainers" should also be explored.

To address someone as "skinny" is just as offensive as "fatty" for the overweight person. Online weight-gaining programs such as Bony to Bombshell and Bony to Beastly are gold mines for people looking for guided help in gaining in the right places with the right foods.
Gail K.

It's been a while since we addressed this topic. You can see our previous coverage in "How to Gain Muscle Mass" at ELmag.com/gainmuscle.

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

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

Please include your city and state. We reserve the right to edit letters for length, grammar, and clarity, and to publish at our discretion. All submitted copy and materials become the property of the magazine. We do not return or guarantee the publication of unsolicited materials. For reprint and publication requests, please contact **experiencelife@experiencelife.com.**

Are Plant-Based Meats Truly More Sustainable?

The carbon "hoofprint" of a meat-based diet is not ecologically sustainable, many experts argue. Others praise the health benefits of plant-based diets. Enter the latest faux-meat producers, such as the widely touted Impossible Foods and Beyond Meat.

Thanks to plant-based ingredients and a message of sustainability, these brands are being gobbled up by consumers — and investors. But, as the *New York Times* reported recently, some critics and financial analysts question whether these products are indeed more sustainable than meat, "because the companies are not transparent about their emissions."

The answer, it seems, is complex.

The *Times* quotes an investor-tracking firm that gives Beyond Meat a zero rating when it comes to sustainability measures. Another analyst rates it a "severe risk," placing it environmentally on a par with beef- and chicken-processing conglomerates.

The reason? The alternative-meat makers have yet to prove their sustainability.

"The dominant narrative from the plant-based industry and the venture capitalists supporting it is that these companies are better for the environment, they're better for health, they're better for this, and better for that," Ricardo San Martin, PhD, research director of the University of California, Berkeley's alternative-meats program, tells the *Times*. "But it is really a black box. So much of what is in these products is undisclosed."

Still, the fact that these companies haven't produced reports to satisfy certain critics doesn't necessarily mean they're hiding anything. Impossible Foods did publish an extensive online "impact report" in 2019. And Beyond Meat promises to release a comprehensive greenhouse-gas analysis in 2022.

> **Eating plants is fundamentally more efficient** than growing plants to feed animals and eating those animals."

Several independent studies have given the meatless meats green stars. Analyzing eight products in 2019, the nonprofit Good Food Institute wrote that "eating plants is fundamentally more efficient than growing plants to feed animals and eating those animals." It concluded the faux meats were a "pathway to a sustainable food supply."

The debate brings into focus larger issues around the sustainability of the standard American diet — in terms of both the environment and our health. For years now, scientists, nutritionists, and futurists have argued in countless forums, as this 2014 white paper in Oxford University's *American Journal of Clinical Nutrition* states, that "plant-based diets in comparison to diets rich in animal products are more sustainable because they use many fewer natural resources and are less taxing on the environment."

Or conversely, as the *New Yorker* noted in a 2019 profile of Impossible Foods, "Meat is essentially a huge check written against the depleted funds of our environment."

Some critics point out, however, that faux meats are an ultraprocessed food, which nutritionists decry. And the ingredients include a heavy emphasis on soybeans, which are commonly grown as a genetically modified monocrop, creating a carbon footprint of their own. Plus, eating too much soy can cause health problems. (For more on soy, see ELmag.com/soy.)

At the same time, meat producers are fighting back, advocating for laws against what the National Cattlemen's Beef Association calls "false and deceptive marketing" of "fake meat." Various lobbying efforts are pushing for the FDA and several state legislatures to require that plant-based meat carry labels stating "imitation" — or to not term their products "meat" at all.

What's often overlooked in this tit-for-tat battle is the ethical concerns involved in raising animals in concentrated animal-feeding operations and feedlots just for slaughter.

— MICHAEL DREGNI

Uncovering the Mystery of Chronic Pain

Those suffering from chronic pain will often confess that nothing hurts more than their inability to convince their doctors that they're hurting. Some relief may be on its way, though: Recent research has gradually begun to uncover the mechanism behind this mysterious malady.

Defined as physical discomfort of an unknown source lasting more than three to six months, chronic pain plagues more than a billion people around the world and has flummoxed scientists for decades. But researchers are now beginning to understand the role a collection of nervous-system cells, called glia, may play in the process.

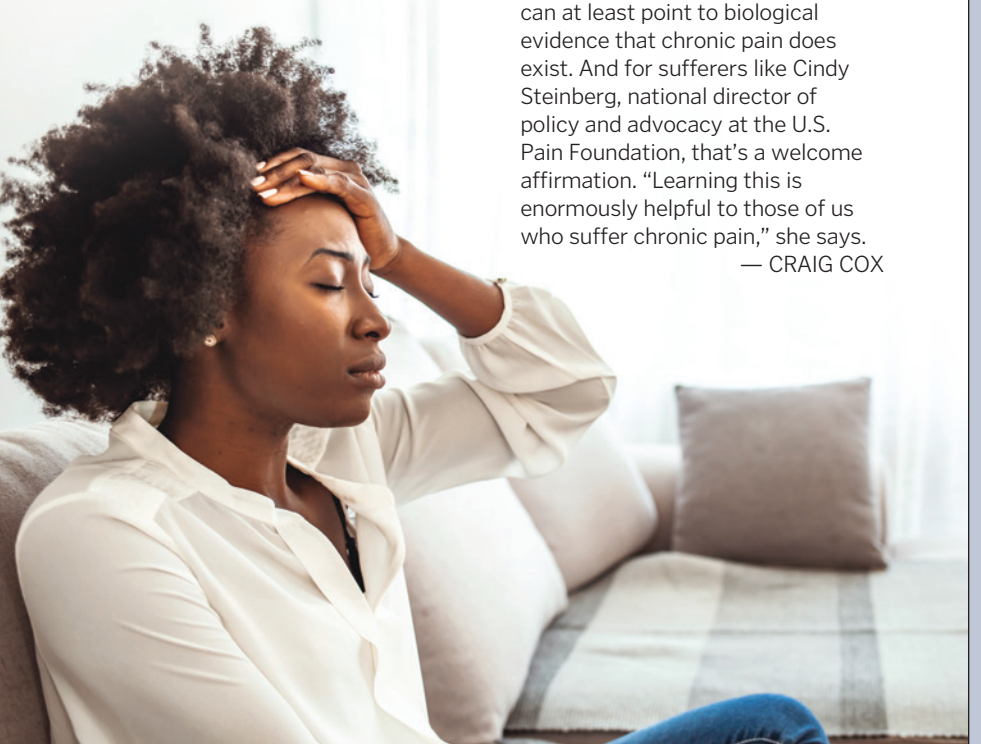
Originally thought to be simple connective tissues binding neurons together, glia have since been found to be instrumental in feeding neurons, cleaning their waste, and helping them communicate. Only in the past 20 years have researchers begun to discover how glia not only respond to pain signals and other neuronal activity but often *manipulate* it.

As a result, the body's normal response to the acute pain that signals an injury becomes an ongoing battle with a mysterious enemy. As Stanford University pain researcher Elliot Krane, MD, tells the *New York Times*, rather than acting as a warning of harm, a pain signal turns into "its own disease."

When you stub your toe on a table leg, for instance, the message travels seamlessly toward your brain via the pain-sensitive neurons of the peripheral nervous system, sparking an instant recognition that your toe is hurting. During the transfer of signals from the peripheral to the central nervous system, however, glia can cause trouble. These cells can dysregulate the pain message, provoking the nerves to continuously sound the alarm.

Though researchers don't yet know how to clearly identify the process in humans, they can at least point to biological evidence that chronic pain does exist. And for sufferers like Cindy Steinberg, national director of policy and advocacy at the U.S. Pain Foundation, that's a welcome affirmation. "Learning this is enormously helpful to those of us who suffer chronic pain," she says.

— CRAIG COX



Exercise
IS MORE IMPORTANT THAN WEIGHT LOSS for a Longer Life

Exercise and diet are both key to good health, but a recent review examining the relationship between the two and longevity found that exercise, not weight loss, is "consistently associated with lower mortality risk."

Published in *iScience* in 2021, the review, which examined hundreds of previous studies, notes that "the increased prevalence of weight-loss attempts in the United States has coincided with the increased prevalence of obesity."

"Many obesity-related health conditions are more likely attributable to low physical activity and cardiorespiratory fitness rather than obesity per se," conclude authors Glenn Gaesser, PhD, of Arizona State University's College of Health Solutions, and Siddhartha Angadi, PhD, of the University of Virginia's School of Education and Human Development.

They warn against what they view as an all-too-common focus solely on weight, which "has been paralleled by an increase in body-weight stigma, which in turn is associated with many adverse health outcomes, including higher risk of all-cause mortality."

The review adds to growing evidence that "healthy" is less about losing weight than it is about being active.

"We would like people to know that fat can be fit, and that fit and healthy bodies come in all shapes and sizes," says Gaesser. "We realize that in a weight-obsessed culture, it may be challenging for programs that are not focused on weight loss to gain traction."

— MICHAEL DREGNI

4 Steps to Eating Less Sugar

One of the best ways to improve your health is reducing the amount of sugar you eat — but that's easier said than done.

Americans are struggling with this: On average, we consume 6 cups of the sweet stuff per week, or 312 cups per year. That's well in excess of the recommended limit of 1 cup per week for women and about 1¼ cups per week for men.

Beyond the sugary foods we know we're eating, the sweetener is hiding in many surprising places — including savory foods and those with a faux health-food halo.

No wonder we need some practical, simple strategies to eat less sugar. Here are four steps you can take.

STEP 1

PREVENT CRAVINGS.

It's a lot easier to moderate sugar intake when you can avoid the urge to consume it in the first place. These strategies can help:

- **Hydrate with water.** It's easy to mistake thirst for a sugar craving.
- **Balance your blood sugar.** Plan your meals around vegetables, healthy fats, and protein. Cravings often result from a spike in blood sugar — and subsequent crash — from meals that are rich in simple carbs and lacking in protein and fat.
- **Reinvent your snacks.** Try olives, avocado, nuts, plain Greek yogurt, boiled eggs, or cheese instead of sugary treats.
- **Get good sleep.** When you're sleep deprived, appetite-regulating hormones trigger cravings.
- **Maintain a nutrient-rich diet.** Deficiencies in certain vitamins and key minerals, such as magnesium, can cause cravings. A high-quality multivitamin can help remedy nutrient deficits.

STEP 2

EVALUATE THE SUGAR CONTENT OF FOODS YOU EAT, THEN AVOID THEM OR SWAP THEM.

Begin by understanding how much you're consuming. For one week, check your food labels without judgment. Once you have a better idea of your top sources of sugar, plan to either avoid that food or swap it for a heathier alternative.

STEP 3

IF IT'S A SUGAR SOURCE YOU'RE NOT READY TO ELIMINATE, REDUCE THE SERVING SIZE OR FREQUENCY.

Though completely eliminating added sugar is commendable, it's also tough. This approach can offer more staying power.

STEP 4

CHOOSE YOUR INDULGENCES MINDFULLY.

We tend to consume most of our sugar mindlessly, but if there's a certain item that includes added sugar and has a special meaning or nostalgic appeal, plan for it. Think of it this way: Leftover breakroom muffins are unlikely to evoke the same emotions as Grandma's pecan pie at your family's Thanksgiving dinner.

Regularly ask yourself, "Is this indulgence meaningful?" It can help you prioritize when to enjoy a sugary treat and when to skip it.

— SAMANTHA McKINNEY, RD, CPT

GET MORE TIPS

Find additional strategies for eating less sugar at **ELmag.com/sugartips.**

Fortifying Kids' Nutrition

Cartoon characters hawking processed junk, fast-food chains pushing cheap eats, and Big Food manufacturers zeroing in on salty, crunchy, and sugary foods aimed at young taste buds: Sometimes it's amazing America's kids *ever* eat a square meal.

Our children are facing nutrition-related health threats like never before. Parents, teachers, and advocates all understand the challenge — but there are several key efforts to turn things around.

Nutritious School Lunches

Some 31 million students — 22 million of whom are from low-income families — are fed daily via the National School Lunch Program, making it the nation's second-largest antihunger initiative after the Supplemental Nutrition Assistance Program. Gone are the days when policymakers counted ketchup as a vegetable, but parents still have little control over the quality of school meals.

BRIGAID is a group of chefs that collaborates with school-kitchen teams to provide training and recipes, empowering districts to offer more nutritious meals. Founded in 2016 by Dan Giusti, former head chef of the restaurant Noma in Copenhagen, Brigaid has worked with school systems around the country.

Brigaid's latest project, with the Denver Public Schools, is cosponsored by the **LIFE TIME FOUNDATION**. The nonprofit, charitable arm of Life Time has worked with districts across the United States since 2011 and currently serves 35 school districts, which represent 3,634 schools and 1.7 million students.

"By offering kids high-quality, scratch-cooked meals from kindergarten through 12th grade, you're setting them up to reach their full potential. Improving our nation's public-school food programs is one of the most effective ways to positively impact our children's health," says Life Time Foundation nutrition project manager Megan Flynn, MPH, RD. "School nutrition professionals show children that they are loved and respected through delicious meals, and teach them how to make healthy choices every day."

67%

The proportion of American kids' calories that come from ultraprocessed foods like frozen pizza and hamburgers, microwavable meals, and packaged snacks and sweets, according to a nationwide study published in 2021 in *JAMA* that analyzed the diets of 33,795 youths ages 2 to 19.

Quality school lunches may also include options for halal, kosher, and vegetarian meals, and more. To answer the challenge, the Berkeley, Calif.–based **EDIBLE SCHOOLYARD** is aiming to start a garden in every schoolyard to offer better produce for lunchtime as well as inspire young gardeners.

Whole Foods Market's **WHOLE KIDS FOUNDATION** promotes school gardens, salad bars, and even beehives.

Tasty Education Programs

Several organizations, including Action for Healthy Kids' **NOURISHED** and the U.S. Department of Agriculture's **TEAM NUTRITION**, aim to teach kids the fundamentals of nutrition.

95%

Growth from 2001 to 2017 in the number of Americans under age 20 living with type 2 diabetes — which was once considered an adult-onset disease. At the same time, the number of people under age 20 diagnosed with type 1 diabetes increased by 45 percent, according to a 2021 report in *JAMA*.

The value of cooking lessons for kids — whether taught in school or by parents at home — pays off through their whole lives. A 2018 study followed teens into their 30s and found that developing cooking skills as a young adult produced long-term benefits for health and nutrition.

"It is important to expose children to healthy foods in a positive way," says Derek Hersch, BS, coauthor of a 2014 study that reached similar conclusions. "Creating habits and behaviors at this age is the most important part."

Healthy-Eating Model

Eating well at home can help shape a kid's long-term relationship with food, says psychologist and family therapist Anne Fishel, PhD, cofounder of Harvard's **FAMILY DINNER PROJECT**, which promotes the value of family meals.

"There have been dozens of studies showing that regular family dinners are great for children's body, mind, and spirit — their mental health," Fishel explains.

19.3%

Proportion of kids ages 2 to 19 classified as obese as of 2017–2018, according to the Centers for Disease Control and Prevention. That trend is especially prominent among kids ages 2 to 5.

— MICHAEL DREGNI


SOME THINGS IN LIFE ARE WORTH WAITING FOR.
A NEW HEART SHOULDN'T BE ONE OF THEM.
With the most innovative approach in transplants, we can find and deliver hearts to patients that other hospitals overlook. Giving us the shortest wait times in New York and the highest survival rate of post–heart transplant patients.
Learn more about the #1 heart transplant center in the Northeast at nyulangone.org/thebestoutcomes
Source: Scientific Registry of Transplant Recipients (SRTR), 2022.
Scan to learn more.


NYU Langone Health
#TheBestOutcomes
HEART
KEEP UPRIGHT
DONATED
HUMAN ORGAN/TISSUE
for TRANSPLANT
NYU LANGONE
NYC NY
HANDLE WITH CARE

Tastemaker

Top Chef host and best-selling author Padma Lakshmi is broadening her horizons with a show that plays to her passion for immigrant cultures and their food stories.

BY **LORI BERGER**

PHOTOS BY **JEFF LIPSKY**

In her show *Taste the Nation*, Padma Lakshmi adds a new title to her already impressive CV: culinary crusader. The Emmy-nominated veteran of *Top Chef* has turned her passion and advocacy for immigrant culture (she was an artist ambassador with the American Civil Liberties Union for five years) into a program that melds the authentic food she loves with its originating cultures. It's a treat for body and soul.

"The issue of immigration in this country is such an integral one — so many cultures have come here and contributed to American culture," says the best-selling cookbook and children's-book author and former model. "America to me is a microcosm of the world. In reality, it's a lot of conflicting, complex things, but our nation as an ideal is a much bigger and more important beacon of hope internationally. I wanted to show that. I wanted people from whatever community I was featuring to speak for themselves."

Growing up in New York City and Chennai, India, Lakshmi, 51, says her appreciation of food began in her family's kitchen, where she learned to cook vegetarian Indian food with her mother, grandmother, and aunts.

"My grandmother, along with the other women in my family, gave me the foundation for cooking," she recalls. "I didn't grow up eating in fancy restaurants. My mother cooked at home nearly every day, except when we went out for pizza or Chinese food once or twice a month."

As an adult, Lakshmi has dined in plenty of upscale restaurants around the world, but she says she still prefers mom-and-pop eateries, back-alley food carts, or a bowl of homemade chicken soup. "I'm interested in food and its connection to peoples' lives," she explains. "I'm not pooh-poohing fine dining — it's the world I've been knee-deep in. But at the end of the day, on my own free time, I prefer a hole-in-the-wall restaurant."

It's that perspective that has made her a favorite among viewers — even though she's always felt like a bit of an outsider in the food world. In fact, she's never worked in a restaurant.

"I've always been a little left of center, and I've always had kind of off-kilter tastes," she admits. "But the minute I decided to be as much myself as I could and not apologize for it or bend to try to shape or shift myself into what I thought other people might want me to be was the moment I started finally really experiencing success."

In a recent Zoom interview, Lakshmi shared how she found her way into food writing, her take on food culture, and how her innate curiosity nourishes her as she navigates a jam-packed schedule.

Q&A

WITH **PADMA LAKSHMI**

EXPERIENCE LIFE | How did you find your way into the world of food writing?

PADMA LAKSHMI | I've always loved to cook and to write — I just never knew you could have a career in it. I learned this from my grandparents: My grandfather loved books and instilled a love of books in me, and my grandmother was an excellent cook — she taught me all the principles of food that I know.

These two people who raised me, along with my mother, gave me this path in life. It's only recently that I've seen it for what it is and that I've fully realized it.

EL | That path has included a 16-year tenure with *Top Chef* and now *Taste the Nation*, among many other accomplishments. How do you maintain your enthusiasm for the former while also delving more deeply into food culture in your new show?

PL | I think they are two opposites of the same world. *Top Chef* is like my family. When I go back every year to shoot a new season, it's like a big family reunion. I've grown up with the people on that show, and we've experienced everything from childbirth to death and divorce together. Without *Top Chef*, I would not have the platform that I do to do a documentary-style show like *Taste the Nation* or for the cookbooks or my children's book.

Taste the Nation is my little documentary food show — it's very auteur-driven and represents my worldview. At the end of the day, the show is my voice, and the only thing that matters is that I'm being honest, that I'm willing to learn, and that I'm being respectful and authentic to the communities I embed myself in. It's about allowing them space and listening to their stories as told by them, as they see fit.

EL | Indian food is part of your personal immigrant story. Does Indian cooking get the love it deserves?

PL | I think Indian food is on the cusp of being as well known as some of the other immigrant cuisines in this country, like Mexican, Chinese, or Thai food. I don't think it's there yet because, until now, it's been North Indian food that has dominated outside of India: tandoori chicken, naan, heavy, meat-based curries.

But Indian food is very regional: The South is more rice-based; the North is more wheat-based. The South features a lot of fish, coconut milk, chilies. It all makes for a very rich terrain for eating different kinds of foods.

EL | Do you have a go-to Indian dish that might be new to a lot of readers and worth trying?

PL | I make a very simple fish curry called *meen moilee*. It's sautéed ginger, onion, and garlic with some turmeric, curry leaves, and green chili. You sauté the vegetables together, then brown the spices in the pan. Then you deglaze the pan with coconut milk and let that simmer. When the coconut milk begins to separate, you add a little bit of mango powder or tamarind, and then you poach the fish in that mixture.

You can add any kind of vegetable you want or make the same dish with chicken, vegetables, or just tofu. There is a misconception that all Indian dishes are spicy, but this is a very delicate dish.

EL | Do you and your 12-year-old daughter, Krishna, cook and eat together?

PL | My daughter likes to cook but prefers to bake. She's grown up on the set of *Top Chef*, she's been at all the shoots for my cookbooks, and she goes to food festivals with me. She's knee-deep in it too, so I don't have to try very hard to get her in the kitchen.

EL | How have you guided her eating habits?

PL | She has great eating habits. She loves vegetables, but she also loves sugar, cakes, boba tea, and all that stuff. She's very conscious of what she is and is not eating, so I don't worry about it.

I don't believe in forcing children to eat, but I also don't believe in placating children. The attitude I've always had in our house is that "this is what is for dinner, and this is what we're eating. If you don't like it, there are leftovers in the fridge or you can have a scrambled egg with some carrots, celery, and cucumber and wrap it in a tortilla."

EL | How do you nourish yourself when you're traveling and working and raising a daughter?

PL | I would like to rest, but my version of rest and relaxation is going somewhere: choosing a country and going there to explore it through its food, historical sites, art, and music. I am a nomad at heart. I have very little expertise in anything, but my superpower is that I'm a curious person. I like to learn about other people's cultures, to listen to their music, see how they dress and speak, and hear what their jokes are about. I want to have those experiences when there's not a camera running.

EL | What does wellness mean for you?

PL | It means having enough time to relax and do nothing — which I'm admittedly not good at. It's having enough time to exercise regularly and do a slow and methodical workout. I'm a beast when it comes to working out. I love it! I consider it a privilege that I get to work out as much as I do because most people in this country don't have the resources or time to do it with their work schedules.

My most precious commodity is my time. It's very alluring to want to take on more and more work and responsibility, but at the end of the day, my first priority is making sure that I'm a present and attentive mother, and my second priority is making sure I'm intellectually gratified.

EL | What would you like your legacy to be?

PL | I hope I am able to teach a generation or more of people around the world about food and its connection to identity — whatever that food is and whoever's identity we're talking about.

LORI BERGER is a veteran entertainment journalist and producer based in Los Angeles.

LET WELLNESS BLOOM

Spending time in nature has the power to increase our daily wellness. It helps relaxation, improves your mood, and helps you sleep like a baby. So we took all the same feeling of a hike or camping trip and packed it into one tasty, full-spectrum hemp extract gummy you take to experience the magic of nature.

THE WORLD'S MOST TRUSTED HEMP EXTRACT™.

CHARLOTTE'S WEB™
STANLEY BROTHERS

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

DAILY WELLNESS | CALM | SLEEP | RECOVERY | IMMUNITY

Use Up That Avocado

Don't toss out that precious fruit! Discover four ways to use an avocado that seems past its prime.

BY **COURTNEY LEWIS OPDAHL**

Few food-storage tragedies create more angst than a wasted avocado. Holding a squishy or browned fruit in your hand brings the realization that the right time to eat it was yesterday.

There are good reasons to make the most of these fruits: Avocados deliver a variety of antioxidants, including alpha-linolenic acid (an omega-3 fatty acid), carotenoids, and vitamins C and E. And because growing them sustainably is so challenging (read more on page 79), discarding one just because it's past its prime can seem especially wasteful.

You can refrigerate ripe avocados to make them last another week, but if they are overripe, try using them in the following ways.

COURTNEY LEWIS OPDAHL is *Experience Life*'s managing editor.

SWEET TREAT

Swap avocado for butter and bake vegan brownies, cakes, or other moist desserts. Try our creamy, dairy-free Avocado Chocolate Mousse With Cacao Nibs (pictured here); find the recipe at ELmag.com/veganmousse.

HAIR CARE

Make a hydrating hair mask with an avocado and a tablespoon of honey. Massage the mixture gently into your hair and scalp and leave for 20 minutes. Rinse, then shampoo and condition your hair as usual.

BEAUTY BENEFITS

Blend ripe avocados with bananas, oatmeal, honey, or yogurt to create a skin-loving face mask. We like this combination: Mix ½ cup oatmeal and half an avocado and leave on your face for 10 to 15 minutes to help moisturize. Store leftovers in an airtight container in the refrigerator and use within five days. (Find four more DIY recipes at ELmag.com/avocadomasks.)

SMARTER SMOOTHIES

The fatty acids in avocados are excellent nutrients for body and brain, making them a great choice for your morning meal. If your overripe fruit is looking dull, blend it with greens to brighten. Try half an avocado, ½ cup pineapple, 1 cup coconut water, one kiwi (optional), ¾ cup spinach or kale, and protein powder, if you'd like.

PLAY FEARLESS

JUST HIT THE BALL. CLASH V2 WILL TAKE CARE OF THE REST.

Building a Power Mindset

A personal trainer reflects on how his reckoning with health and wellness as a child shaped his life — and how his goals have changed over the years.

BY **CLIFF EDBERG**

From left: Cliff Edberg and his wife, Jaclyn, with their daughter, Mckenna, in summer 2021; Edberg during a training session.

As most overweight kids will tell you, the struggle is as real as it gets. I was never small, but at 10 years old, I peaked at close to 200 pounds. I was teased mercilessly. The worst experience was when I was tackled by kids who noticed the similarity between me — with my weight and red jacket — and Santa Claus.

They proceeded to sit on my lap and tell me what they wanted for Christmas. In that moment and others, I wanted to disappear.

Edberg posing for a baseball photo the summer after 6th grade.

My size wasn't for lack of movement. I played football and baseball and spent a lot of time playing outside in my small-town neighborhood. I just really liked food and wasn't exposed to many options. I also wasn't aware of how to make the best choices for my body.

Food was a big part of our family, and we sat together for dinners — big steaks, bread, and potatoes were staples in our household. I didn't learn how to eat or move with intention; I just went along with the flow, not knowing anything different.

That changed when I joined the football team's summer strength-and-conditioning program before seventh grade. As part of the program, I spent three or four days a week with a supportive coach who encouraged me, helping me become stronger and more confident in my body's abilities.

My food choices changed, too. I began eating less bread and more protein. I lost about 30 pounds. That experience gave me relief and clarity: For the first time, I realized I had the ability to change my body and my life.

Getting stronger and faster and seeing my body change led me to want more of the same, which ultimately sparked an enduring passion for fitness and nutrition that has shaped the course of my life — in more ways than one.

Hitting the Bull's-Eye

The confidence and safety I found in exercise and nutrition became indispensable, and my dedication set me up for success. Early on, I was able to understand how my choices affected my outcomes. In fact, my time in the gym was so important that I turned down a football scholarship because I couldn't see myself working out in that college's fitness facility. I ultimately chose North Dakota State University (NDSU), which featured an amazing exercise space.

I excelled at math and science, so my natural inclination was to study engineering. But despite my success in class, doubts about my major began to creep in. And while working on a group project during my freshman year, I suddenly found myself dreading the career I was pursuing.

At that moment, I realized I couldn't continue on the path I'd started. I left the lab without completing the assignment, dropped my major without consulting anyone, including my parents, and added Exercise Science and Dietetics.

Growing up in Brainerd, Minn., I'd never heard of a personal trainer. The day I stepped away from engineering, I had no clue about the career opportunities, job market, or potential compensation that would be available.

But following my passion and helping people learn from my experiences was important. It was such a strong calling, and I knew I would figure it out. I couldn't fail, because I cared about exercise and nutrition so much. I could re-create what happened to me for other people; I could help others take a more active role in their health.

Lessons Learned — and Taught

In 2006, I started competing in bodybuilding contests, which meant that over about 10 years, I had gone from being a fat kid with no confidence to a bodybuilder with the physique he'd always dreamed of. While training, I forced myself to follow strict regimens that allowed me to control my appearance and prepare for the physical challenge ahead.

In short, I was overtraining and undereating. For my first show in 2007, I took my physique from 250 pounds to a lean 170 pounds in six months.

After the show, it was a different story: I quickly gained 36 pounds. No matter how much I ate, I still didn't feel full. Any amount of weight gain made me feel like my 10-year-old self again, so my solution was to sign up for another competition. Over the next five years, I trained for nine shows and repeatedly yo-yoed between overeating and militant compliance to get ready for the stage again.

Meanwhile, I graduated from NDSU and returned to Minnesota in 2009 with a job as a personal trainer and dietitian at Life Time. Although I continued bodybuilding for a while, the ritualistic nutrition and exercise schedule took a toll on me. I put my heart and soul into training for and participating in each competition, and this often meant sacrificing relationships with friends and family.

Finally, in 2011, I couldn't see myself going through another cycle of fatigue, hunger, and loneliness. I competed in my last show that year and quit bodybuilding. Using the tools I'd learned as a personal trainer and dietitian, I began to adopt more sustainable practices for my own nutrition and exercise.

Reining in my habits has taken years of practice and is still something I manage every day. But living through this continuum of experiences gave me the ability to empathize with clients who fall anywhere along the wellness spectrum.

My cumulative experience also positioned me to help educate fellow trainers and work with clients to change lives for the better. Today, I'm the senior director of virtual training at Life Time. I've learned so much about the many factors that affect people's wellness besides weight — dietary needs, physical limitations, age — which I continue to apply to my own health journey.

Living by Example

As a 36-year-old who coaches people on healthy living, I know how lucky I am to have begun thinking critically about my health when I was just 10. At such a young age, I had the motivation to make the kind of lifestyle changes that most obese children struggle with into adulthood.

In 2015, I started dating the woman I would marry in 2019, and our daughter was born in 2020. I want a different childhood for her than I had, so modeling a healthy lifestyle as a parent is my newest priority.

Between my wife, who was a D1 soccer player and a bodybuilder, and me, raising our daughter to eat healthy and be active won't be a problem. Her self-image will be my biggest concern. As she grows up, we'll make sure we watch our self-talk in front of her and compliment healthy behaviors rather than a particular outcome. I know my words and actions will have an impact.

I often think about how my goals have changed over the years. When I was a young person, it was to not get teased. In high school, I wanted to be the starting varsity running back; then it was to become a professional bodybuilder. As a personal trainer, I wanted to be an expert in my field and represent what I was coaching. Now, as a husband and father, I'm motivated to prioritize health for my family.

Cliff's Top 3 Success Strategies

1

EVOLVE. Your body adapts to find homeostasis, so find challenges that help you progress and keep you motivated. "A person's journey changes. Training to run your first 5K won't be the same program as training to run your fastest 5K. You have to evolve what you're doing."

2

BALANCE. You can't be consistent if your plan isn't sustainable. Do what's functional. Make your health and wellness something that complements your life, not detracts from it.

3

SEEK PROGRESS OVER PERFECTION. Give yourself permission to make mistakes and own mistakes. "If you have a rough weekend or a bad night, don't beat yourself up or give up on the progress you've already made. Accept that you chose to do that and can choose to do differently."

TELL US YOUR STORY!

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


NO EXCUSES.
NO SHORTCUTS.
NO GIMMICKS.
NO TOMORROWS.
NOBULL
NOBULLPROJECT.COM/LIFETIME

Real Fitness

Looking for an edge to boost your athletic performance? Compression garments and devices improve blood flow and can help your muscles work harder and recover faster.

Page **32**

Explore the benefits of compression technology — and whether it might be right for you.

THE MURPH CHALLENGE

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

100 pull-ups, 200 pushups, and 300 squats bookended by one-mile runs.

This challenging workout is more popular than ever. Here's how to tailor it to your unique fitness level.

Run one mile. Then do 100 pull-ups, 200 pushups, and 300 squats. Finish by running another mile. All in a 20-pound vest (or body armor), if you don't mind.

To the uninitiated, this sounds like torture. But to fitness enthusiasts around the world, it's instantly recognizable as the Murph, a workout that pushes body and mind to the limit, as a way of honoring a fallen American service member. Although the routine can be done by anyone, at any time, it's often performed in groups on Memorial Day as part of what's become an annual tradition at fitness centers and gyms, including many Life Time clubs.

"The Murph's simplicity, its challenge, and its sense of community are what make the workout so appealing," says Life Time personal trainer Alec Blenis, CSCS, PN2, who set a new world record for the Murph in 2021. "It's exciting to compare yourself to other times around the world and to your own past performances. Knowing the significance of the workout makes it even more special."

The broad popularity of the workout is at odds with its extreme difficulty: Many people want to participate but find that they can't complete the routine as prescribed. Some push their bodies too hard in an effort to participate, risking injury and exhaustion. Others don't try at all, opting to sit on the sidelines no matter how much they may want to join in.

"It's actually a very accessible workout," insists Blenis (pictured above). "Almost anyone, anywhere can do the workout in some form — with modifications."

Blenis's record-setting time, with a weight vest, was 32:41. This writer typically completes modified, weight-vest-free versions in just under an hour. In other words, there is more than one way to complete this workout.

One common approach is to modify its structure. Some people choose to perform a half-Murph, in which all the distances and rep counts are cut in half, Blenis explains. Another popular option is to break up the reps of the pull-ups, pushups, and squats: Instead of doing straight sets of 100/200/300, you could do five sets of 20/40/60, 10 sets of 10/20/30, or even 20 sets of 5/10/15.

The goal, says Blenis, is to "keep moving." As a so-called chipper workout, the Murph isn't designed to include rest. It's meant to push you to keep moving while you're tired (and hopefully while maintaining good form). In this way, each exercise is

a break from the exercise before it. (Learn more about scaling chipper workouts at ELmag.com/chipperworkout.)

Another way to make the Murph more accessible is to modify the exercises:

• If running one mile is not an option, substitute indoor rowing or kettlebell swings.

• If pull-ups aren't in your wheelhouse, try a foot-supported or jumping variation, or do inverted rows on a TRX suspension trainer.

• Instead of pushups from the floor, elevate your hands on a box, a bench, or even the wall. You can also do kneeling pushups.

• Modify the squats to make them more body-friendly by taking a wider stance, perhaps, or using a TRX strap for support. Or swap out squats for a lunge variation instead.

The goal of modifying isn't to make this easy — the Murph really won't ever be an easy workout — but rather to open up new possibilities for your unique body. It is possible to do it and still be able to walk the next day.

"When it comes to modifications, the only thing I don't like is an option that limits range of motion," says Blenis. "For example, I see a lot of people scale the workout by simply doing poor-quality pushups; I'd rather see someone do elevated pushups with good form." Similarly, it's common — especially when fatigue sets in — for participants to let their squat and pull-up form degenerate.

"As long as you're moving through the largest possible pain-free range of motion with intention and intensity," says Blenis, "the sky's the limit in terms of modification."

THE WORKOUT

The Murph is not an everyday workout — or even an every-month workout. It asks you to give your all, and it's a considerable challenge to your strength, cardio conditioning, physical endurance, and mental grit. So, while it's not necessarily the best training tool, it is a great test of your all-around fitness.

Whether you choose to tackle it a few times a year or just join the tradition on Memorial Day, always begin with a thorough, full-body, dynamic warm-up. (Try our favorite warm-up routine at ELmag.com/perfectwarmup.)

Then make some decisions about how you'd like to modify.

1.

First, decide whether you want to perform the full Murph or a half-Murph.

THE MURPH

- One-mile run
- 100 pull-ups
- 200 pushups
- 300 squats
- One-mile run

HALF-MURPH

- Half-mile run
- 50 pull-ups
- 100 pushups
- 150 squats
- Half-mile run

2.

Then decide how you'd like to break up the reps. Here are some options for the full workout:

- Five sets of 20 pull-ups, 40 pushups, and 60 squats
- 10 sets of 10 pull-ups, 20 pushups, and 30 squats
- 20 sets of 5 pull-ups, 10 pushups, and 15 squats

Whatever approach you choose, keep track of your reps. An easy way to do this is to write out the rep/set counts and cross them off as you complete each set.

Once you've settled on structure, you can focus on movement choice and quality. Substitute alternative exercises as needed and focus on maintaining range of motion and form even as you become fatigued.

THE EXERCISES

RUN ONE MILE

ALTERNATIVE 1:
ROW (1,000 METERS)

Maintain good form, even as you become fatigued. Focus on driving through your feet to initiate each pull.

ALTERNATIVE 2:
KETTLEBELL SWINGS (500)

Power each upswing with your hips and avoid pulling up on the weight with your arms. On the downswing, draw the weight toward your groin — don't let it drop toward your feet.

PULL-UP X 100

Stay active through your full body, engaging your shoulders, abs, and glutes on each rep.

ALTERNATIVE 1:
FOOT-SUPPORTED PULL-UP

Set up a low bar so your feet are on the floor. Use your feet to assist you as you perform each rep.

ALTERNATIVE 2:
TRX INVERTED ROW

Grasp the handles of a suspension trainer, facing the anchor point. Keep your body straight and engaged from head to heels throughout the movement. Step your feet farther away from the anchor point for more assistance.

PUSHUP X 200

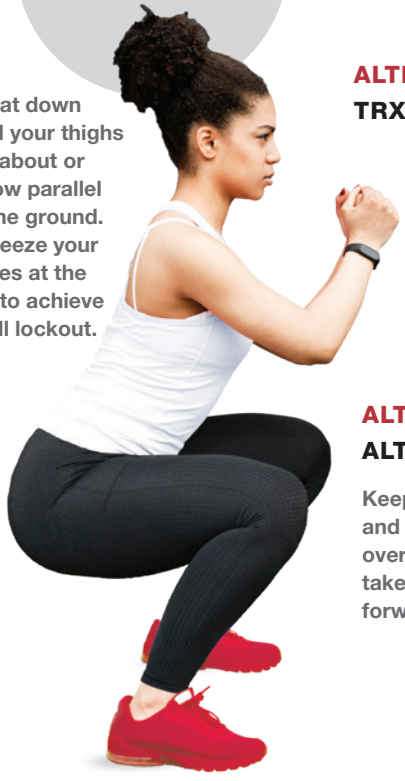
Keeping your body straight and your head in a neutral position, lower yourself until your chest grazes the floor. Aim elbows out about 45 degrees from your body.

ALTERNATIVE:
HANDS-ELEVATED PUSHUP

Elevate your hands on a sturdy box, a bench, or even a wall to ensure that you're performing each rep with great form and a full range of motion. (You can also drop your knees to the floor instead of elevating your hands, but the same form cues apply.)

SQUAT X 300

Squat down until your thighs are about or below parallel to the ground. Squeeze your glutes at the top to achieve a full lockout.



ALTERNATIVE 1:
TRX-SUPPORTED SQUAT

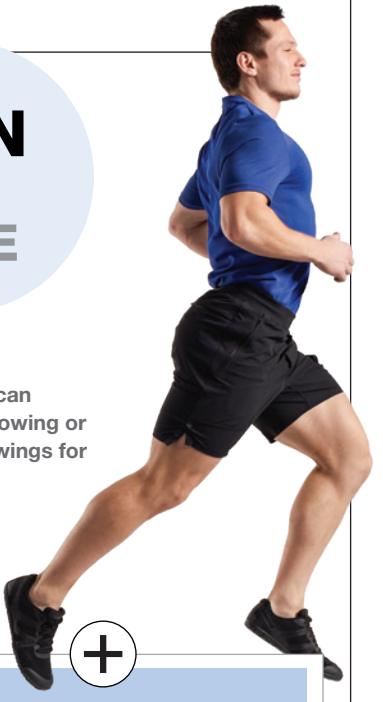
Hold on to the handles of a suspension trainer for support in reaching a full-depth squat.

ALTERNATIVE 2:
ALTERNATING LUNGE

Keep your chest proud and shoulders squared over your hips as you take turns lunging forward on each leg.

RUN ONE MILE

Again, you can substitute rowing or kettlebell swings for the run.



GET THE DETAILS

Find full exercise descriptions and info on doing a Murph relay at **ELmag.com/themurphworkout.**

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

MAKE THE SWITCH TO

BIO STEEL CLEAN. HEALTHY. HYDRATION.

SPORTS HYDRATION

ZERO SUGAR

ESSENTIAL ELECTROLYTES

ECO-FRIENDLY PACKAGE

NOW AVAILABLE AT

LIFECAFE

The Seated Twist

Twisting can help stretch muscles of the torso, restore spinal mobility, stimulate circulation, and support digestion.

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

Rotate gently from the base of your spine to your mid-back, your upper back, and, lastly, your neck, until you're gazing over your right shoulder.

Focus on elongating the spine and twisting upward. Don't hunch over or lean backward as you twist.

If hooking the elbow is too difficult, reach your left hand around your right thigh and place it gently on your right hip.

Either keep your left leg extended or bend the knee to bring the left foot to your right hip.

PHOTOS: KELLY LOVERUD; STYLING: PAM BRAND; MODEL: COURTNEY HELGOE

Twisting poses are plentiful in yoga. And whether they're done sitting — like the seated twist featured here — or standing, upside down or on the floor, these moves can stretch the muscles of the abdomen and back and help restore and maintain range of motion through the spine. They can also help support circulation and digestion and promote relaxation and stress relief.

Despite being commonplace, twists have some common pitfalls. One is initiating — or forcing — the twist through the cervical spine (neck) rather than engaging the thoracic spine (mid-back) and the lumbar spine (lower back).

To engage your lower vertebrae and avoid straining your neck, begin by sitting up tall, grounding down through your sit bones, and stacking your shoulders over your hips. Then start the twist from the base of your spine: Visualize a spiral unfurling from your lower back to your mid-back, your upper back, and, finally, your neck.

Another pitfall: "muscling" the twist using the strength of your arms. Moving deeper into the pose with assistance is fine, but try to avoid initiating it by pulling yourself with a hand or elbow.

Yet another issue is disconnecting the movement from the breath. Breathing is a keystone of any asana practice; when twisting, stay aware of your breath and match it to your movements to help deepen your rotation and enhance your relaxation, both of which aid digestion.

Finally, it's important to know and respect your unique body. If assuming and maintaining an upright posture while seated on the floor is difficult, try performing the twist while seated on a yoga block or a sturdy chair.

The following tips can help you wring the most out of your twists.

INSTRUCTIONS

1. Sit on the floor with both legs straight. Cross your right knee over your left leg and place your right foot on the floor.
2. Place your right hand beside your right hip or slightly behind you. Inhale and extend your left arm overhead.
3. On an exhale, rotate to the right and draw your left elbow down to the outside of your right knee.
4. Breathe deeply in this position for four or five breaths. Switch sides and repeat.

+ TRY THESE VARIATIONS

For two more digestion-supporting poses, visit **ELmag.com/seatedtwist.**

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

Get Compressed

Compression garments and devices manipulate your circulatory system to boost performance and recovery. Are they right for you?

BY **NICOLE RADZISZEWSKI**

Your circulatory system plays a major role in exercise, delivering oxygen, nutrients, and hormones to every cell in your body while also removing waste. Every time you lift weights, run, or practice yoga, circulation affects both your performance and your recovery.

Compressing muscles and veins to improve blood flow can affect how hard muscles work and how quickly they recover. Compression garments, like socks, shorts, and sleeves — as well as pneumatic-compression devices, commonly seen in the form of inflatable devices attached to a pump — are popular ways to manipulate the circulatory system in hopes of boosting performance, speeding recovery, or both.

"Any type of exercise creates localized swelling and inflammation," explains Life Time master trainer Danny King. "Compression attempts to push fluid out to dissipate this response by getting rid of blood and waste products and bringing new blood in."

Learn more about how these different compression technologies work.

Compression Garments

Compression wear is designed to provide enough pressure to help reduce blood pooling in the veins and increase blood flow through the arteries to working muscles. There's a wide range of this type of clothing, including socks, calf and arm sleeves, shorts, shirts, and pants made of tight-fitting technical materials.

Physicians have long prescribed compression garments to reduce swelling and blood clots, and they're also used by many athletes and exercisers, who swear that the garments aid performance and recovery.

Exercise-focused compression garments typically offer either graduated compression or directional compression, explains Danny Blake, MS, CSCS, director of human performance for the Rocky Mountain Consortium for Sports Research.

Graduated compression refers to a piece of fabric that is tighter distally, or farther from the center of your body (for instance, at your ankles or wrists), and looser closer to the torso (for instance, the hips, shoulders, or abdomen). Directional compression features multiple pieces of fabric with a range of elasticity and improved proprioceptive feedback.

So, do they really work? Research has offered mixed conclusions, with more robust evidence supporting compression for recovery than for performance. Results vary depending on the activity and its intensity.

One 2017 roundup of 23 peer-reviewed studies found that people who wore compression garments during and after exercise enjoyed recovery benefits, especially 24 hours after resistance workouts. A 2014 analysis of 12 studies also showed that these garments enhanced recovery, moderately reducing the severity of delayed onset muscle soreness (DOMS).

Directional compression has yet to undergo any large-scale research, but a small study involving alpine skiers showed that wearing this type of tights with additional fortification around the knee joints eased the ground-reaction forces the joints experienced. "The researchers found that wearing directional compression reduced forces at the knee, which were redistributed to the hip," Blake explains.

Clothing is one of the most accessible ways to incorporate compression therapy into your routine — and even a placebo effect can be positive.

"Using compression garments is such an easy thing," King says. "There are no negative consequences, they're probably going to work, and they're not incredibly expensive."

To boost postexercise recovery, wear them for a minimum of 30 minutes during exercise or within 12 hours after a workout, he suggests. Choose a mild or medium level of compression and make sure the item fits tightly against your skin but not so tightly that it cuts off circulation. If a garment causes numbness, difficulty breathing, or skin irritation, remove it immediately.

Pneumatic-Compression Devices

Popularized for fitness recovery by companies like Normatec, pneumatic-compression devices use inflatable cuffs or boots slipped over legs, feet, or arms. Connected to a pump, a device inflates and squeezes through a series of zones from your feet up to your hips, or from your wrists to your shoulders, massaging your limbs and increasing blood flow.

> Compressing muscles and veins to improve blood flow can affect **how hard muscles work and how quickly they recover.**

Whereas compression garments rely on passive compression, pneumatic compression is dynamic because there is an active pumping of blood. "Compared to static-compression garments, dynamic compression allows you to get to a higher level of compression before letting go, which allows muscles to release and relax better," explains King.

This may contribute to reduced muscle soreness, improved flexibility, and better lymphatic drainage and flow.

> **Using compression garments is such an easy thing.** There are no negative consequences, they're probably going to work, and they're not incredibly expensive."

Research has produced various results regarding pneumatic compression as a recovery tool. It may dissipate DOMS more effectively after strength training than after long endurance exercise. A 2017 study found that athletes using pneumatic compression had reduced stiffness and recovered more quickly from heavy resistance exercise. Meanwhile, another 2017 study involving cyclists found there to be little benefit in enhancing recovery or subsequent performance.

Still, the lack of clinical evidence shouldn't prevent you from trying these devices. The more likely deterrent for many people is the price tag: Most popular pneumatic systems cost about $1,000 — a hefty investment compared with a pair of compressive tights. (More health clubs, gyms, and physical-therapy offices are investing in pneumatic systems and making them available to members and patients.)

Pneumatic compression is ideal for athletes who need to recover quickly between contests, says Blake. He cautions against using these devices too frequently, though, because they can inhibit the body's natural adaptations to exercise.

"You want to provide the appropriate adaptive signal to the area and allow it to recover, versus trying to blunt that signal and possibly reduce the positive effects of training," he explains.

Blake adds that using these devices isn't the only strategy to ensure adequate recovery: "Doing the small stuff, like staying hydrated, making sure your nutrition is sound, sleeping adequately, and managing stress, will be far more potent in the long run than an upper-echelon recovery tool like this."

But if it's an approach you find relaxing, pneumatic compression can be a good self-care tool, says King. "As part of a postworkout cool-down, it gives you a much higher perception of relaxation. If you have access, then treating your body better enables you to continue getting fitter at a faster rate."

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

LEARN MORE

Curious about how exercise affects your circulation — and vice versa? Read all about it at **ELmag.com/circulation.**

BLOOD-FLOW-RESTRICTION TRAINING

Compression technology uses tight garments, boots, and cuffs to boost blood flow to an area of the body; blood-flow-restriction training (BFR) uses tight cuffs and straps to do the *opposite*.

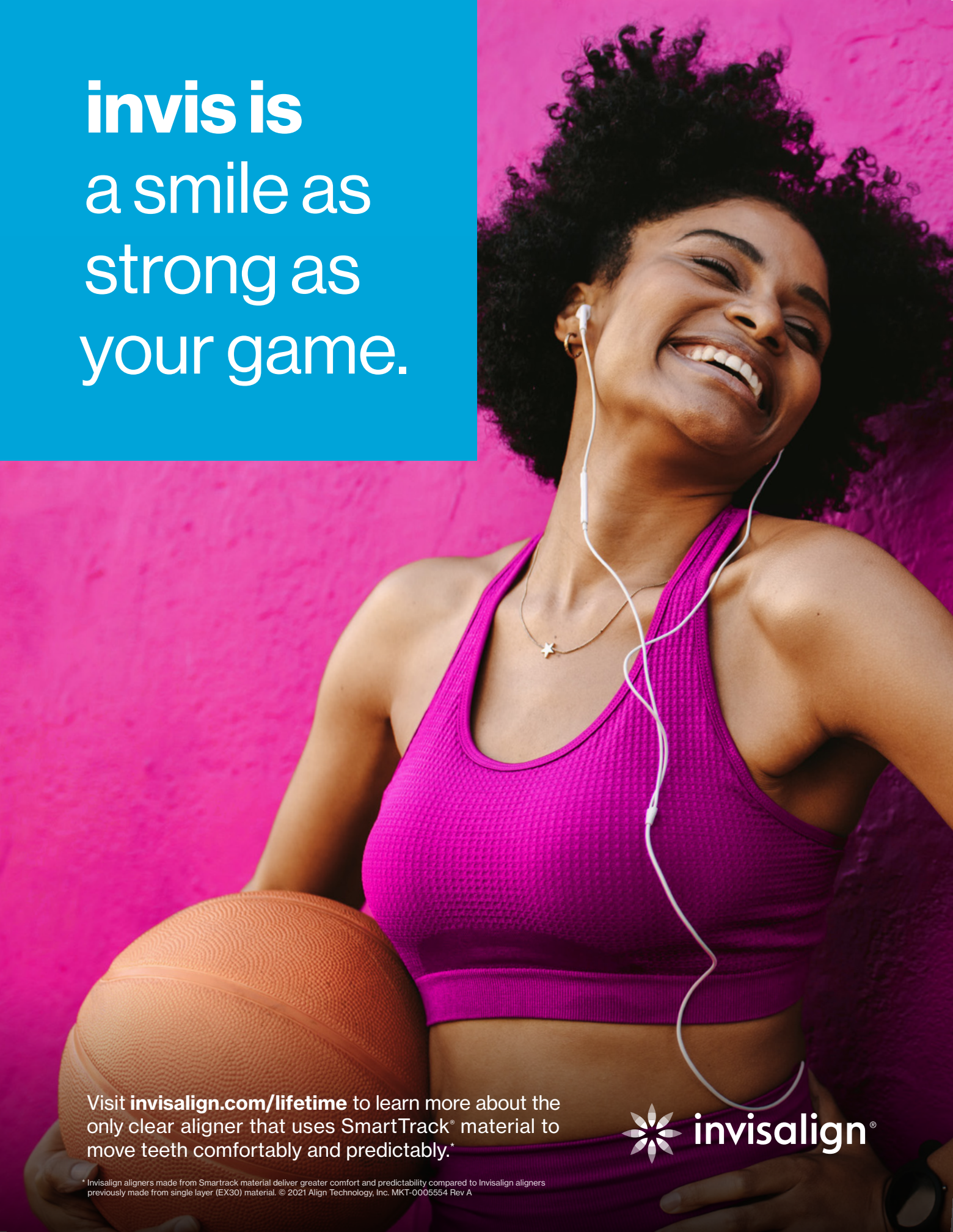
Although restricting flow may seem counterintuitive given the benefits of increasing circulation, it does offer a unique advantage: BFR allows someone to exercise with lighter weights at a lower intensity while still achieving the musculoskeletal adaptations of heavy resistance training.

"BFR tricks the body into thinking it's using heavy resistance even when you're using a lighter load. Metabolically, the body responds similarly to heavy resistance training," says strength coach and physical therapist Mike Reinold, DPT.

Typically applied under the guidance of a physical therapist, BFR involves placing a tight cuff or strap around the part of a limb closest to the torso — either your upper thigh or upper arm, depending on the affected area — and then performing relevant exercises.

BFR is especially useful for rehab. Following injury or surgery to areas such as the shoulders, hips, and knees, heavy loads may not be appropriate or tolerable, but the muscles around the joint need to be stimulated to grow. For example, studies have found BFR to be an effective method for rehabilitation after ACL (anterior cruciate ligament) reconstruction surgery.

Reinold stresses that BFR is not generally recommended for the average exerciser. If you believe you are a good candidate for incorporating BFR into your training routine, he advises, consult with a trained professional, such as a physical therapist, before trying this approach on your own.


invis is
a smile as
strong as
your game.
Visit invisalign.com/lifetime to learn more about the only clear aligner that uses SmartTrack® material to move teeth comfortably and predictably.*
invisalign®
* Invisalign aligners made from Smartrack material deliver greater comfort and predictability compared to Invisalign aligners previously made from single layer (EX30) material. © 2021 Align Technology, Inc. MKT-0005554 Rev A

ripple®

PLANT-BASED PROTEIN SHAKES

SOY FREE

NUT FREE

100% VEGAN

GLUTEN FREE

LACTOSE FREE

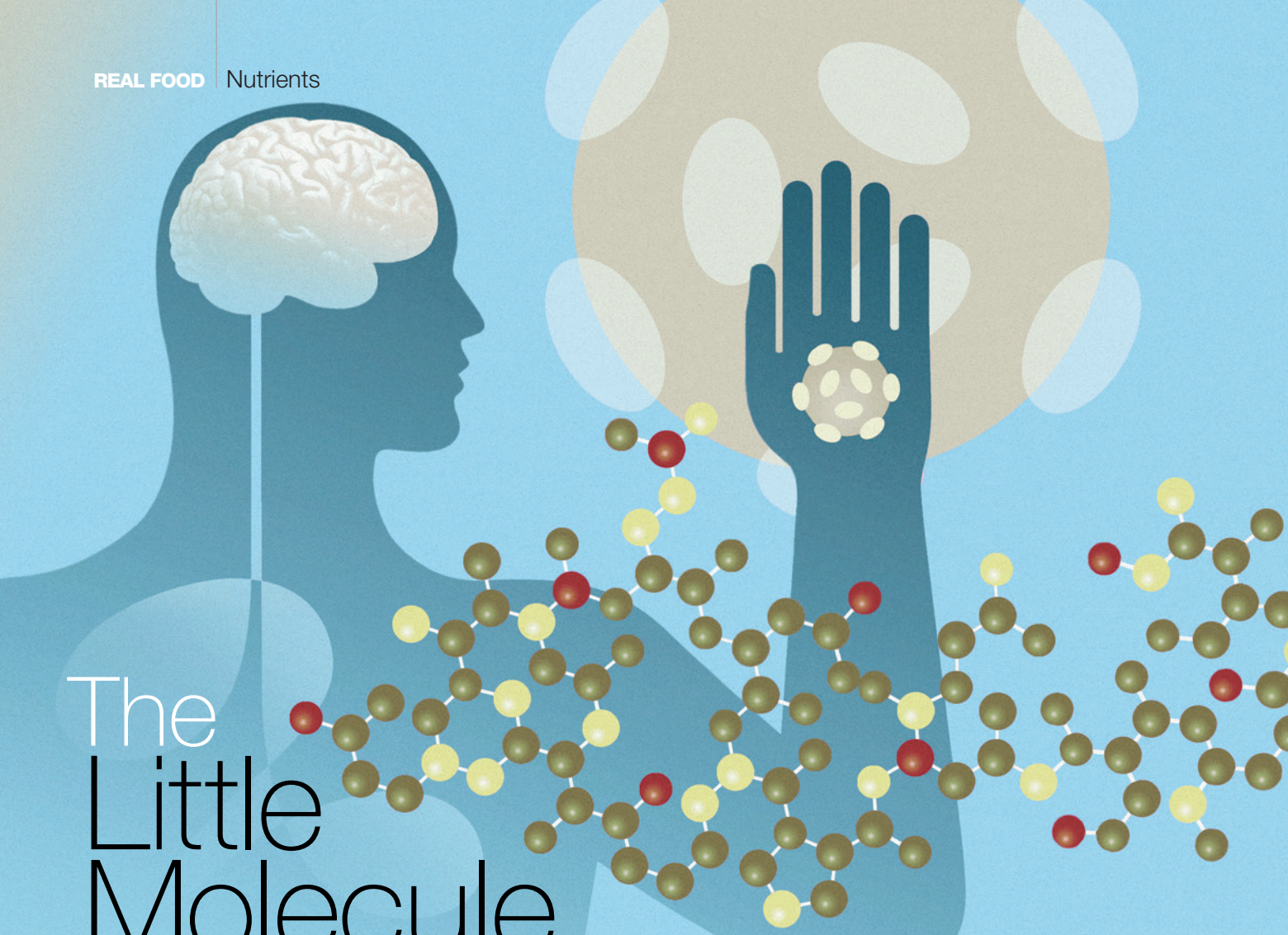
Now Available at:
LIFECAFE®

Real Food

A good dip can make fruits and veggies more appealing, but many are full of less-than-nutritious ingredients. Our recipes offer healthy alternatives that are tasty, too.

Page 44

Find our recipe for this Dark Chocolate Yogurt Dip at ELmag.com/dips.



The Little Molecule That Could

Butyrate is a short-chain fatty acid that plays a surprisingly big role in overall health.

BY **HELEN MARTINEAU**

Here's a fact that reads like a riddle: Half of you isn't you.

Fifty percent of the cells in your body are microbial, and they include fungi, protozoans, viruses, and bacteria. These microbes — known collectively as the microbiome — significantly affect your digestion, immunity, mental health, and more.

Given their supporting role in so many key functions, it's no surprise that you're healthier when your microbes are well fed and happy. One way to ensure this is by consuming enough fiber.

Fiber is food for gut microbes — and it prompts some of those microbes to produce an important short-chain fatty acid (SCFA) called butyrate.

Also known as butyric acid or butanoic acid, this SCFA contributes to an astonishing number of health benefits, including improved digestion, better detoxification, stronger overall immunity, and reduced risk of cancer.

Lackluster butyrate levels, on the other hand, can contribute to problems in all these areas. "If we don't have good butyrate levels, then these critical functions are impaired," explains functional-medicine physician Gregory Plotnikoff, MD.

Butyrate plays a role in so many bodily systems that diagnosing low levels of this molecule can be daunting. A stool test read by a healthcare practitioner trained to recognize optimal and suboptimal levels is the best way to learn if your butyrate production is flagging.

Test or no test, it's worth doing what you can to boost butyrate on your own. "Butyrate has been overlooked for far too long," Plotnikoff says. "It is a powerfully protective molecule that is in our power to activate and promote."

Learn more about how this potent molecule works — and how you can help your body produce more of it.

ILLUSTRATIONS: STUART BRIERS

Fatty Acids 101

You need fatty acids in your diet to support optimal brain and gut health. These molecules are the building blocks of fat — both the fat you eat and your adipose tissue. They consist of chains of carbon atoms with some hydrogen atoms attached, and they come in three sizes: short-chain, medium-chain, and long-chain.

Long-chain fatty acids are most common in animal foods and provide the essential omega-3 fatty acids in coldwater fish, eggs, walnuts, and chia seeds. Medium-chain fatty acids are found in coconut oil and milk fat, and they've enjoyed recent acclaim for their role in MCT (medium-chain triglyceride) oil — a key ingredient in Bulletproof coffee.

Short-chain fatty acids are present in foods like butter and cheese, but our gut microbes typically produce most of the SCFAs the body needs. These endogenously produced SCFAs include butyrate, propionate, and acetate, which work together to keep the gut and immune system in working order.

The best way to boost the body's butyrate production is by supplying the gut with plenty of dietary fiber. Gut microbes break down indigestible fiber and turn it into SCFAs, which are ultimately responsible for the many health benefits associated with fiber: regular bowel movements and overall colon health, right-sized LDL cholesterol levels, steady blood sugar, and stable body weight.

> **It's in our power** to roll back inflammation or to prevent it from even starting when it's not necessary."

Butyrate and the Gut

SCFAs also keep the cells that line the colon (called colonocytes) healthy, providing them with their main source of energy. Although butyrate is the least abundant SCFA the body produces, it has a big impact on gut health.

"Colonocytes seem to love chowing down on butyrate, so most of it is taken up by the gut lining, where it contributes to a healthy colon," notes internal-medicine specialist and gastroenterologist Will Bulsiewicz, MD, MSCI, author of *Fiber Fueled*.

In a healthy gut, the walls of the large intestine are intact but reasonably permeable. They allow nutrients to enter the system while preventing the escape of bacteria, toxins, and food particles.

When intestinal walls are damaged, they become permeable and "leaky."

A range of factors can produce this condition, including stress, a low-fiber diet, and food intolerances. A leaky gut usually leads to widespread gut inflammation, which can trigger gastrointestinal (GI) disorders and more.

Meanwhile, enhanced butyrate production can build a sturdier gut barrier. "Butyrate fixes up the lining of the gut, like taking a beautiful historic home that's been run haggard and restoring it to its original glory," Bulsiewicz explains.

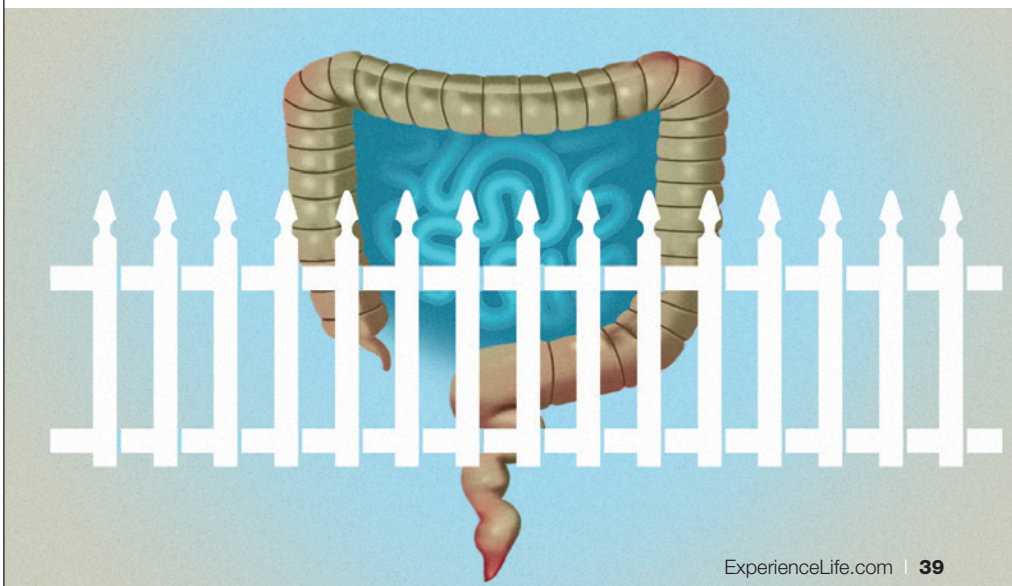
Plotnikoff likens this relationship to the adage that good fences make good neighbors. "Our neighbors — our bacteria — are doing all the maintenance work on this fence that is the gut lining," he notes. "If they're not producing butyrate, then the fence is not being cared for, and it becomes rickety and wobbly. It's not doing the job it needs to be doing."

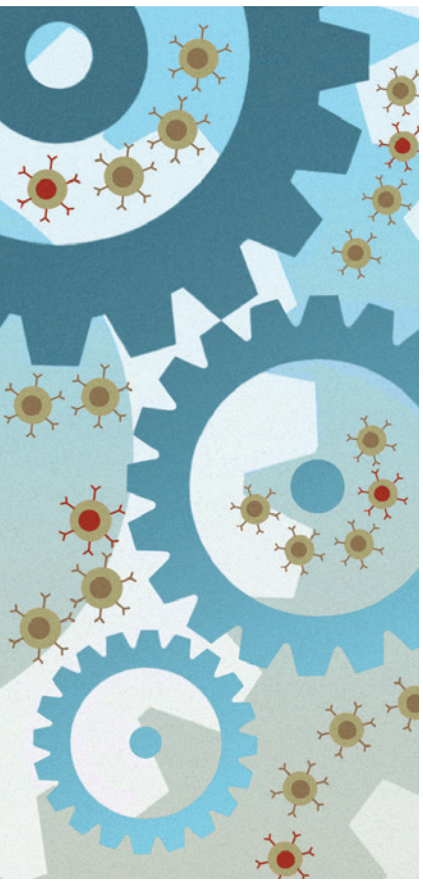
One way butyrate protects the gut lining is by keeping inflammation in check, a task that we sometimes outsource to steroids like prednisone, says Plotnikoff. But butyrate helps regulate inflammation without the side effects of these drugs. "It's in our power to roll back inflammation or to prevent it from even starting when it's not necessary," he says.

Notably, research has found a link between inflammatory bowel disease (IBD) and a deficiency of butyrate-producing bacteria in the microbiome, as well as reduced microbial diversity. This may contribute to the overgrowth of an extra-nasty type of E. coli that often appears in the guts of people with IBD.

According to Bulsiewicz, this E. coli unleashes "pro-inflammatory proteins like a flamethrower as it proliferates, further enhancing dysbiosis and the rise of more E. coli."

Butyrate helps arrest runaway inflammatory processes like these, and supplemental butyrate (in the form of capsules) is sometimes used to treat Crohn's disease.





Butyrate and the Brain

We now know about the connection between the gut and the brain, so it's not surprising that butyrate plays a role in cognitive health. Immune cells in the brain become prone to inflammation as we age, leading to impaired cognitive and motor function. The anti-inflammatory powers of butyrate help mitigate that damage.

Studies indicate that butyrate improves learning and memory in older mice. Animal studies also suggest that butyrate may aid in the fight against Alzheimer's, Parkinson's, and other neurodegenerative diseases.

Alzheimer's is associated with an excess of a protein called beta-amyloid in the brain, where it forms masses called plaques. These may interfere with cell function and damage brain and motor function.

In a 2019 study, mice given sodium butyrate supplements experienced significant reduction in beta-amyloid as well as improved cognitive performance.

Other studies link high-fiber diets and better butyrate levels to improved outcomes among participants with a history of Huntington's disease, autism, or stroke.

Butyrate has also been studied for its effects on depression and other mental-health conditions. A 2021 meta-analysis of 59 studies found that the gut microbiomes of patients with depression, bipolar disorder, psychosis and schizophrenia, and anxiety all showed reduced numbers of anti-inflammatory butyrate-producing bacteria and increased populations of pro-inflammatory bacteria.

Immune cells in the brain become **prone to inflammation as we age,** leading to impaired cognitive and motor function.

Butyrate and the Immune System

Butyrate's benefits extend beyond the gut and brain to influence your immunity. "Although it remains in the bowel, butyrate's effects are systemic," says functional-medicine practitioner Kara Parker, MD, ABIHM, IFMCP. "It's what's called an HDAC (histone deacetylase) inhibitor, which means that it goes systemically throughout the body and messages cancer cells to turn themselves off and die."

The salutary role butyrate plays in the gut may even extend to the health of the lungs, via what's now being called the "gut–lung axis." One 2019 study found that children who lacked butyrate-producing flora were more likely to develop asthma and allergies, while children with robust butyrate production were substantially less likely to do so.

Researchers are still unclear about exactly how butyrate contributes to these effects, but it appears to be through regulating immune-cell behavior. In other words, there isn't much butyrate won't do to protect your health.

Boost Your Butyrate

If you're eager to increase your own butyrate levels, here are several ways to start.

1. **EAT MORE BUTYRATE-CONTAINING FOODS.** Some foods contain butyrate naturally. These include hard cheeses (think Parmesan and pecorino), butter, full-fat yogurt, and fermented foods, such as sauerkraut, pickles, and tempeh.

2. **EAT MORE BUTYROGENIC FOODS.** Certain foods, especially those high in fiber, promote butyrate production in the gut: flax and chia seeds; beans and lentils; high-pectin fruits, such as apples and berries; and vegetables like garlic and onions.

Whole grains are also supportive, and resistant starch from green bananas and cold potatoes helps feed the microbes that make butyrate. Parker recommends adding a tablespoon of potato starch to soups or smoothies.

3. **GET ENOUGH SLEEP.** Rest is a critical factor in butyrate production. "In deep sleep, you repair the gut," explains Parker.

In turn, optimal butyrate levels also help support sleep. One animal study found that SCFAs send sleep signals to the brain, and that higher butyrate levels increase duration of deep, non-REM sleep.

4. **FAST.** According to Parker, a fast-mimicking diet (which involves fasting for 12 or more hours) may help raise butyrate levels. "When you stop putting the food in, you stop making the gut do the functions of digestion, and you allow it to switch to absorption and repairing the holes," she explains. "This helps heal a leaky gut and helps grow more anti-inflammatory bacteria." (For more on intermittent fasting, see ELmag.com/intermittentfasting.)

5. **EXERCISE.** Studies show that exercise increases butyrate levels in the gut, perhaps because it encourages blood flow to the bowels, says Parker. She cautions against overdoing it, though, because stress can exacerbate gut permeability. "Marathon runners classically have breaches in their intestinal barrier," she says.

Researchers are still seeking to define the line between exercise levels that improve gut health and stressful extremes that exacerbate permeability.

6. **MIND YOUR STRESS.** When the body gets overly stressed for too long, cortisol levels rise, and the hormone is "an inflamer of dysbiosis and a suppressor of a healthy microbiome" that contributes to gut permeability, says Parker.

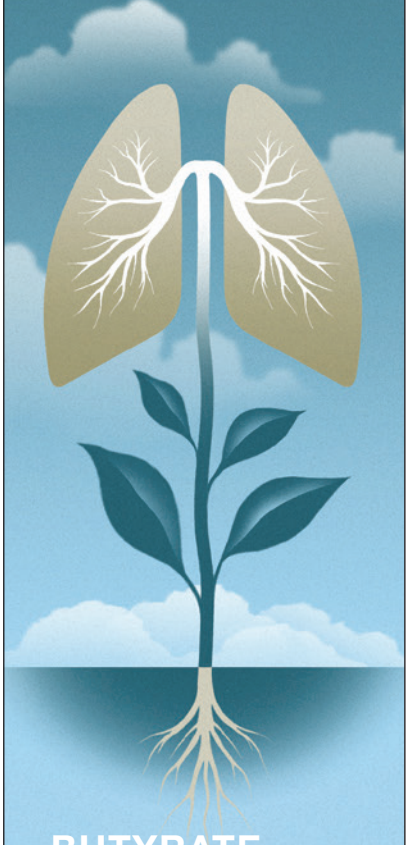
7. **SUPPLEMENT.** If you experience gut pain, constipation, or poor sleep, and you already eat a varied, fiber-rich diet, you may wish to work with a healthcare provider to try butyrate supplements.

This can be especially useful if you've just finished a course of antibiotics and are having a hard time getting your gut back on track. "For a week of normal antibiotics, it can take up to a year to rebalance the microbiome, so, you're going to lose some of the players that make butyrate," Parker explains.

She says most of us will regain those bacteria over time through diet, but sometimes the process is too slow. "If you have severe bowel symptoms — an inflammatory bowel, or acute GI distress — you might want to take some butyrate for a period of time to help reduce that."

In these situations, Parker may prescribe sodium-butyrate or calcium-butyrate capsules. It is possible to get too much, so she recommends working with a functional-medicine provider to get the right dose. ◔

HELEN MARTINEAU is a Minneapolis-based health writer and editor.



BUTYRATE AND COVID-19

Butyrate has been found to help reduce inflammation in the lungs as well as the gut, and researchers hope it may help manage complications from COVID. A 2021 study found that symptomatic COVID patients had lower levels of butyrate-producing gut bacteria, which may play a role in the presentation of gastrointestinal symptoms with COVID infection.

Functional-medicine physician Kara Parker, MD, ABIHM, IFMCP, points to a study of healthcare workers in six countries published in 2021. Of the 568 who got COVID, she says, "those who self-reported that they had a plant-based diet [reduced their odds of severe symptoms] by 73 percent. All those plant-based foods are contributing to increased butyrate. And you just have less gut inflammation when you're eating fewer inflammatory foods."

More research is needed, yet there's no downside to upping your intake of vegetables, fruits, and other fiber-rich plant foods.

Food Safety at Home

How cautious do we need to be in the kitchen? Our experts share tips for safe food handling, prep, and storage.

BY **STEPHANIE SOUCHERAY**

We've all been there: Looking over the spread at the family cookout, wondering whether it's still safe to take a scoop of your aunt's famous potato salad. *How long has it been since she took it out of the fridge — an hour? Maybe two?*

Whether you're milling around at a backyard party or meal planning for a Tuesday night, food safety is not the most exciting thing to consider in the kitchen. But faulty food prep can be dangerous. The Centers for Disease Control and Prevention estimates that 48 million people contract foodborne illnesses each year in the United States, leading to 128,000 hospitalizations and 3,000 deaths.

"Contamination is present in a lot of ingredients we use in the kitchen," says Penn State University senior food-safety extension associate Martin Bucknavage. "Through proper handling and preparation, we normally get by without any issues, but the occasions when we don't do things properly can lead to significant illness."

Most of us recognize the threats caused by raw protein — think salmonella. But any raw ingredient can be dangerous, as can food that's been improperly cooked or stored.

With a few simple precautions, you can be both safe and confident in the kitchen. We spoke to some food-safety experts to clear up several common myths.

Myth:

Washing hands is just for kids.

Fact: The simplest, easiest, and most effective way to prevent food contamination is at your fingertips — handwashing.

"Not washing hands is such a huge problem," says University of Minnesota Extension food-safety educator Suzanne Driessen, who adds that it should be the first thing you do before you start cooking. You know the drill by now: Wash your hands with warm, soapy water for at least 20 seconds, and dry thoroughly.

Most home cooks forget to wash their hands as they move from one task to another, says former Penn State Extension food-safety educator Sharon McDonald, MEd, RD, LDN. "That's where we tend to see people slip up."

According to a 2019 survey by the U.S. Food and Drug Administration, 76 percent of respondents reported washing their hands with soap after touching raw meat, but only 68 percent did so before preparing food — and only 39 percent wash after cracking open raw eggs.

Myth:

Raw meat is the only place bad bacteria hang out.

Fact: It's true that raw meat should be handled safely to avoid foodborne illness — but everything from eggshells to uncooked flour can harbor salmonella, E. coli, campylobacter, and other dangerous bacteria. Those are the most common culprits of diarrheal disease, and though most will result in only a few days of mild to moderate symptoms, all have the potential to cause severe illness.

> "Cooking without a thermometer is like **driving without a speedometer.**"

Not washing your hands after touching any of these raw ingredients could lead to cross-contamination of the next thing you touch. That's why it's important to wash up after handling any raw food product, including meat, fish, produce, eggs, and uncooked flour.

You can also minimize the potential for cross-contamination by washing surfaces (including countertops and cutting boards) and tools (such as knives and spatulas) as you move through food preparation.

Myth:

Rinsing raw meat in water removes any dangerous pathogens.

Fact: When it comes to food, cleaning gets a bit more complicated. Fish, meat, and poultry should not be washed before cooking.

"Something like chicken has a high prevalence of bacteria, so you can't expect to simply wash it off," explains Bucknavage, who adds that the water is likely to spread bacteria to other surfaces in your kitchen.

Bucknavage does recommend thoroughly rinsing raw vegetables and fruits to remove any surface contaminants, but they don't need to be washed with soap or disinfectant.

Myth:

You can tell by sight or touch when meat is done.

Fact: Kitchen thermometers are your best friend for safe cooking, but our experts say they're not used nearly enough by home cooks. Thermometers are the only way to tell if meat, fish, or casseroles are cooked to a temperature adequate to kill common pathogens, including salmonella and campylobacter.

"Cooking without a thermometer is like driving without a speedometer," says Bucknavage. "You need to use one."

McDonald adds that temperature is an exact science that requires precise measurement. "Too many people rely on things like 'Do the juices from chicken run clear?' and 'Does it feel firm?' when checking for meat doneness. But these are not reliable methods."

To guarantee great-tasting food that's not overcooked, experts say, cook fish and whole cuts of beef, lamb, or pork to 145 degrees F. Ground meats should be cooked to 160 degrees F, while poultry — whole or ground — and leftovers should hit 165 degrees F.

Myth:

Only professional kitchens need to worry about food storage and cooking temperatures.

Fact: As a general rule, refrigerating food below 40 degrees F keeps bad bacteria at bay, and cooking food above 140 degrees F destroys most harmful pathogens. The range between 40 and 140 degrees F is known as the food "danger zone," because disease-causing bacteria thrive at those temperatures.

To avoid the danger zone, never allow cooked food to sit at room temperature for more than two hours. If you're serving a meal outside and it's warmer than 90 degrees F, that window shrinks to one hour, because bacteria can multiply more quickly at higher temperatures.

It's also vital to cook prepared food to proper temperatures. A recent outbreak of salmonella was linked to frozen, breaded chicken products that were heated in microwaves or air fryers. These machines couldn't raise the internal temperature of the meat to a safe level.

"Always read the cooking instructions on the label of a prepared food," Driessen suggests. "It will tell you the temperature needed to make sure it's safe." The label will also explain how best to heat the food; sometimes appliances such as air fryers or slow cookers are not recommended.

Myth:

Placing hot food in the fridge immediately is the safest way to cool it for storage.

Fact: Leftover food must be refrigerated within two hours after cooking. Although small servings can go into the fridge immediately while still hot, larger amounts must be cooled properly before refrigerator storage. According to the USDA, improper cooling is one of the main ways home-cooked foods get contaminated.

Cooling a dish too slowly on the countertop could leave it sitting in the danger zone for too long — but putting a steaming hot pan of food directly into the fridge can raise the temperature around the dish, making the whole space more hospitable to salmonella and other bacteria.

If you're making a soup or stew and storing it for later use, Driessen recommends dividing it into shallow containers to cool more quickly before storing. You could also place each container in an ice bath to speed the cooling process. If you're dealing with a solid dish, like lasagna, try cutting it into smaller pieces to help it cool faster.

What if you accidentally leave your pot of soup at room temperature for several hours, or even overnight? Bring it back to a boil for 10 minutes to inactivate any bacteria, which can multiply more quickly at less than 130 degrees F.

Myth:

Put frozen food in a bowl of warm water to thaw it quicker.

Fact: You may have grown up watching your parents or grandparents thaw food this way, but leaving frozen foods at room temperature (whether on the counter or in warm water) risks letting it cross into the danger zone.

Instead, plan ahead and thaw frozen foods overnight in the fridge, where they'll stay safely below 40 degrees F.

Myth:

The old sniff test can tell you if food is still good.

Fact: Simply sniffing or eyeballing food isn't good enough. Some contaminated food that causes serious illness doesn't smell or look any different. For instance, the toxins produced by staphylococcus (which causes staph infections) and botulinum (which can lead to botulism) are both tasteless and scentless. And salmonella bacteria do not affect the taste or smell of food.

Instead, label things clearly so you can know how long they've been in the fridge. Poultry and ground meat are good for one or two days after purchasing, while fish can be kept in the fridge for up to three days. Leftovers will last three to four days. Whole cuts of raw beef, lamb, and pork can keep for up to five days.

STEPHANIE SOUCHERAY is a health journalist based in St. Paul, Minn.

Just Dip It

Dunk sliced raw veggies or your favorite crunchy crackers into one of these healthy recipes.

BY **ROBIN ASBELL**

Whether you're laying out a spread for a small gathering or simply trying to entice the kids to eat more veggies, a good dip can make a fine solution. These recipes deliver on both flavor and nutrition by using nuts, lentils, vegetables, and other whole-food ingredients.

Make your dip party a mix-and-match affair by including an assortment of dippers, like gluten-free or whole-grain crackers, pitas, and your favorite raw, crunchy veggies. And you don't have to stop with dunking: A spoonful of dip can take a sandwich from swell to superlative or add a bite of flavor to your next grain bowl.

Whether you dip, dollop, spread, or smear, once you try these recipes, you're sure to be coming back for more.

Kale and Chèvre Dip

Makes 2 cups
Prep time: 10 minutes
Cook time: 10 minutes

- 1 small bunch Tuscan kale, stemmed (about 3 packed cups)
- 4 cloves garlic, peeled
- ½ cup shredded Parmesan cheese (about 2 oz.)
- ½ cup pine nuts
- ¾ tsp. sea salt
- 8 oz. chèvre
- ¼ cup extra-virgin olive oil

Bring a large pot of water to a boil. Drop the kale leaves into the boiling water and stir for one minute to blanch. Drain kale and rinse with cold water, then wring out. Place kale on a kitchen towel and roll up, pressing to dry the leaves.

Add the garlic cloves to a food processor one at a time to mince. Add the Parmesan, pine nuts, and salt. Process until minced, stopping to scrape down the sides of the bowl as needed.

Add the kale and process until minced. Add the chèvre and process to incorporate, then drizzle in the olive oil with the machine still running, and process until smooth.

PHOTOS: ANDREA D'AGOSTO; PROP STYLING: ALICIA BUSZCZAK; FOOD STYLING: PAUL JACKMAN

Muhammara

Makes 2 cups
Prep time: 10 minutes
Cook time: 20 minutes

- 1 cup pomegranate juice (or ¼ cup pomegranate molasses)
- 1½ cups walnuts
- 3 cloves garlic, peeled
- 12 oz. jar roasted red peppers, drained
- 2 tbs. lemon juice
- ¾ tsp. sea salt
- 1 tsp. ground cumin
- ½ tsp. red-pepper flakes (or Aleppo-style pepper)
- ¼ cup extra-virgin olive oil

Place the pomegranate juice in a small pot and bring to a boil over high heat. Boil vigorously, reducing the heat to keep it from boiling over, for five to eight minutes. The juice should look syrupy and be reduced to about ¼ cup. Set aside to cool. Alternatively, skip this step and use ¼ cup pomegranate molasses.

Place the walnuts and garlic in a food processor and process until minced. Add the peppers and process until smooth, stopping to scrape down the sides of the bowl as needed. Add the cooled pomegranate reduction (or pomegranate molasses), lemon juice, salt, cumin, and red-pepper flakes, and process to mix. Drizzle in the olive oil with the machine still running, and process until smooth.

Muhammara is a Syrian dish that typically calls for pomegranate molasses, which can be tough to find in American grocery stores. The pomegranate-juice reduction in this recipe makes a good stand-in.

Curried Red-Lentil Dip

Makes 2 cups
Prep time: 10 minutes
Cook time: 30 minutes

- 1 cup red lentils
- 2 cups water
- 1 tbs. avocado oil or ghee
- 1 tbs. minced fresh ginger
- 2 cloves garlic, minced
- 1 large jalapeño, seeded and minced (include the seeds for more spice)
- ½ tsp. ground turmeric
- 1½ tsp. ground cumin
- 1½ tsp. ground coriander
- ½ tsp. sea salt
- 1 tbs. fresh lemon juice
- ½ cup fresh mint leaves, chopped

In a small pot, bring the lentils and water to a boil, then reduce the heat to medium-low and cover the pot, leaving the lid slightly ajar. Cook for 20 minutes, stirring occasionally, until the lentils are soft and have absorbed all or most of the water. Drain the lentils, if necessary, but don't rinse. Set them aside to cool.

While the lentils cool, place a medium pot over medium heat, then add the oil. Add the ginger and garlic and cook for about 30 seconds, then add the jalapeño. Cook for another 30 seconds, then add the turmeric, cumin, and coriander and cook until fragrant, about another 30 seconds.

Add the cooked lentils, salt, and lemon juice to the pot and stir to mix. If the mixture appears too thick, stir in water, a tablespoon at a time. If you'd like it thicker, keep stirring over the heat for a few minutes until it reaches the desired consistency.

Remove mixture from the heat and stir in the mint.

This dip is an homage to dal, a ubiquitous dish in Indian cuisine. The recipe calls for the lentils to be cooked like rice, which keeps them from falling apart and gives the final dish some texture.

A classic Lebanese dish, baba ghanoush is ideal for eggplant skeptics: Roasting the veggie mellows its natural bitterness and gives it a lush, nutty flavor.

Baba Ghanoush

Makes 2½ cups
Prep time: 10 minutes
Cook time: 25 minutes

- 1½ lb. eggplant
- 2 cloves garlic, peeled
- ½ cup tahini
- ½ tsp. sea salt
- 1 tsp. smoked paprika
- 3 tbs. fresh lemon juice

Preheat the broiler and adjust the top rack of the oven so it's 7 to 8 inches from the heat.

Place the eggplant on a sheet pan and pierce once with a fork. Broil for five minutes, then turn it and broil for five minutes more. Turn it once more and broil five minutes longer, until the skin is well charred. Place the hot eggplant in a glass container with a lid and cover tightly to steam it. After a few minutes, remove the lid and let the eggplant cool slightly, then scoop out the flesh and discard the skin.

Add the garlic to a food processor and process to mince. Add the cooled eggplant flesh and process until smooth. Scrape down the sides of the bowl and add the tahini, salt, and smoked paprika. Process until smooth; then, with the machine still running, pour the lemon juice through the feed tube and process until mixed.

ROBIN ASBELL is a Minneapolis-based recipe developer and cookbook author.

Cilantro-Coconut Chutney

Makes 1½ cups
Prep time: 10 minutes
Cook time: 15 minutes

- ½ cup unsweetened shredded coconut
- ½ cup brown sesame seeds
- 2 tbs. brown mustard seeds
- 2 tbs. ground coriander
- 1 jalapeño, seeded and chopped
- 2 tbs. peeled and sliced fresh ginger
- 2 cups cilantro, leaves and tender stems
- 1 tbs. lemon juice
- 3 tbs. brown sugar
- 1 tsp. sea salt
- ½ cup coconut milk

Heat a small sauté pan over medium-high heat. Add the coconut and toast until golden, about three to five minutes, stirring frequently. Transfer to a food processor.

In the same pan, toast the sesame seeds until fragrant and golden brown, about three minutes, stirring frequently. Transfer to the food processor and process with the coconut until finely ground.

In the same pan, toast the mustard seeds until fragrant, about three minutes, stirring frequently. Add the ground coriander and toast for a few seconds, then immediately transfer the toasted spices to the processor with the coconut mixture. Process to grind the mustard.

Add the jalapeño, ginger, and cilantro, and process until mixed. Add the lemon juice, brown sugar, salt, and coconut milk, and process until smooth.

GO SWEET

Get our recipe for Dark Chocolate Yogurt Dip at **ELmag.com/dips.**

THE NEXT LEVEL AT EVERY ALTITUDE

With 30+ events nationwide — each delivering premium experiences in cycle, run and tri — there's an opportunity for everyone to take the next step and fulfill their training at the highest level. What's your next step?

Find your event at **lifetime.life/athleticevents**

TROPICAL 5K FEB. 5

MIAMI MARATHON AND HALF MARATHON FEB. 6

305 HALF MARATHON AND 5K MAR. 6

UNBOUND TRAINING CAMP MAR. 31

SEA OTTER CLASSIC APR. 7-10

CHICAGO SPRING HALF MARATHON MAY 22

UNBOUND GRAVEL JUN. 2-5

LEADVILLE TRAIL MARATHON AND HEAVY HALF JUN. 18

LEADVILLE RUN CAMP JUN. 24-27

LUTSEN 99ER JUN. 25

LEADVILLE MTB CAMP JUN. 30-JUL. 1

SILVER RUSH 50 MILE TRAIL RUN JUL. 9

CRUSHER IN THE TUSHAR JUL. 9

SILVER RUSH 50 MILE MOUNTAIN BIKE JUL. 10

TAHOE TRAIL JUL. 16

NEW YORK CITY TRIATHLON JUL. 24

LEADVILLE STAGE RACE JUL. 29-31

LEADVILLE TRAIL 100 MTB AUG. 13

LEADVILLE TRAIL 10K RUN AUG. 14

LEADVILLE TRAIL 100 RUN AUG. 20

CHICAGO TRIATHLON KIDS & SUPERSPRINT AUG. 27

CHICAGO TRIATHLON AUG. 28

CHEQUAMEGON MTB FESTIVAL SEP. 17

BARN BURNER SEP. 17

CHICAGO HALF MARATHON SEP. 25

THE RAD DIRT FEST OCT. 8

BIG SUGAR GRAVEL OCT. 22

AUSTIN RATTLER MTB / RUN NOV. 5

TURKEY DAY - CHICAGO NOV. 24

TURKEY DAY - MIAMI NOV. 24

LIFE TIME®

JULY 24, 2022

verizon

NEW YORK CITY TRIATHLON

NYCTRI.COM

RACE THE GREATEST CITY IN THE WORLD!

The Verizon New York City Triathlon is the nation's premier urban triathlon, with a course that wraps through some of the busiest streets in Manhattan. This epic race includes a 1.5k swim with the fast current in the Hudson River, a 40k ride up the traffic-free Hudson Parkway into the Bronx and back, followed by a 10k run across 72nd St before finishing in the heart of Central Park.

NO LOTTERY IN 2022! REGISTER TODAY

LIFE TIME®

Eggplant

Get inspired to use more of this nightshade in your home kitchen.

BY **KAELYN RILEY**

PICK YOUR PLANT

The dark-purple globe eggplant is the standard in most markets, but there's a wide world of other varieties, including the miniature fairy-tale eggplant and white eggplant, which both tend to be sweeter and more tender than the globe. Keep an eye out for Italian eggplant: It looks quite similar to the globe, but its smaller size means it's less likely to taste bitter.

BEST THE BITTERNESS

If a bitter-tasting eggplant experience has put you off, consider giving it another chance. The smaller varieties all tend to have thinner skins and fewer seeds, which often translates to sweeter flesh. Also know that bitterness comes with age, regardless of the variety, so try to buy fresh eggplant and use it as soon as possible.

SHOP AND STORE

Look for eggplants with shiny skins, green stems, and no blemishes. They should feel firm to the touch; avoid those with soft spots. Store at room temperature, away from foods that produce ethylene (which can hasten spoilage), like bananas, apples, and tomatoes. If you must refrigerate an eggplant, use it within a few days, because it's susceptible to chilling injuries.

EXPERIMENT WITH EASE

Looking for some eggplant inspiration? Cook up chef José Andrés's Pasta With Eggplant and Chickpeas (ELmag.com/eggplantpasta), or try eggplant in our Plant-Based Spinach Lasagna (ELmag.com/veganlasagna). Cooking for a crowd? Make our Ratatouille (ELmag.com/ratatouille) or check out our recipe for Baba Ghanoush on page 47.

ILLUSTRATIONS: JENNIFER JACOBSON

KAELYN RILEY is an *Experience Life* senior editor.


DRINK
UP!

HYDRATION IS SO GOOD FOR YOUR HEALTH

THAT IT'S BECOME A HOT WELLNESS TREND. OUR EXPERTS WEIGH IN ON THE HYPE AND BREAK DOWN EVERYTHING YOU NEED TO KNOW.

BY **SARAH TUFF**

The ultimate all-around health supplement — which boosts your brain, enhances your energy, fires up your fitness, and pushes your performance potential — may also be the simplest and most obvious: water.

As we learned in Biology 101, water is a critical aspect of every single one of the body's cells and systems. Drinking enough of it is key to organ and muscle function, cognitive health, athletic powers, exercise recovery, and overall get-up-and-go vitality.

"Water is like oxygen" for our bodies, says Stavros Kavouras, PhD, FACSM, director of Arizona State University's Hydration Science Lab. That's because some 60 percent of the human body is water: The brain and heart contain 73 percent water, and even bones are watery — 31 percent. Plus, that water carries the chemicals essential for living and thriving.

"When you're well hydrated, your body's cells, tissues, and organs have a proper balance. They do what they need to do without any disruptions," explains nutrition coach Paul Kriegler, RD, director of nutritional-product development at Life Time. "That means delivering nutrients or energy or oxygen to tissues and cells and efficiently removing any waste produced. The fluid medium is required for all of that to happen."

While it's no secret that water is vital, getting the right amount with the right mix of sodium, potassium, and other essential minerals (known as electrolytes) can be a delicate balancing act. Mess with the fluid levels in your body and you risk upsetting this equilibrium.

Electrolytes are essential to our body's function. They are electrically charged minerals that regulate blood

pressure and muscle contractions. They help produce energy, too.

Yet it's possible to get too much or too little of a very good thing.

Drinking too little water can lead to underhydration, which can cause lethargy, brain fog, headaches, digestive troubles, and difficulty recovering from workouts. Push the deficit too far, and you face dehydration, a more serious metabolic condition.

On the other hand, drinking too much water can result in overhydration, where the chemicals necessary for cell function can become too diluted; this can cause nausea and vomiting, headache, confusion, dizziness, lightheadedness, and fainting.

Complicating the issue is the ever-rising, ever-confusing popularity of Hydration (with a capital *H*) as a trend, research topic, and big-bucks industry.

In recent years, athletes at all levels have begun paying more attention to how fluid intake affects their performance, and companies have stepped up to the task of marketing hydration to the public. In addition to the long-popular Gatorade, accessories such as Nalgene hip flasks, streamlined CamelBaks, and brightly colored handheld bottles from companies like Nathan have become de rigueur for athletes, especially runners, hikers, and other endurance-sport enthusiasts.

Today, it's common to see water dressed up in a dizzying array of fancy colors and infused with vitamins and minerals, A through zinc. Electrolyte packets and tabs are ubiquitous, as are bottles of enhanced water loaded with everything from caffeine to protein.

These zhuzhed-up waters promise more of everything — energy, immunity, performance. And the new breed of water bottles offers bells and whistles, like charged crystals purported to align our chakras and motivational sayings to help us drink our "daily gallon."

Teens and celebrities alike tote water bottles that seem better suited for an Everest expedition than a run around the block or the TikTok videos in which they're featured.

The reality is that hydration is not a fitness fad or a fashion accessory.

> "DRINKING WATER SHOULD BE SO NATURAL THAT YOU DON'T EVEN THINK ABOUT IT."

News sources report that 75 percent of Americans are regularly dehydrated — though that's misleading, says Kavouras. "Clinically speaking, they're not 'dehydrated'; they're not going to drop dead. However, they're not drinking *adequate* amounts of water."

Which leads one to wonder: What is adequate?

As with many queries relating to health and fitness, the answer is "It depends." Personal characteristics (such as age, body size, and medical conditions) play a part, as do lifestyle factors (like stress and activity levels). Environmental issues, including temperature, humidity, and altitude, to name a few, matter as well.

It sounds complicated, but it doesn't have to be. A combination of scientific evidence and unique-to-you trial and error can help shift hydration from a top-of-mind concern to a consistent habit that helps you live and perform at your best.

Simply put, says Kavouras, "Drinking water should be so natural that you don't even think about it."

Our experts sort through the hype and break down everything you need to know to stay well hydrated — without stressing over every sip.

GETTING THE **WATER YOU NEED**

Conventional wisdom long held that the average person needs 64 ounces, or eight 8-ounce glasses, of water daily. "Gym wisdom," meanwhile, maintained that an ounce per pound of your body weight, an ounce per pound of lean body mass, or a full gallon per day was the goal.

The National Academy of Medicine, which issues official U.S. nutritional guidelines, advises a middle ground: 125 ounces a day for men and 91 ounces a day for women, including water consumed through food sources. These recommendations correspond to adequate hydration levels for the average American.

If you crave a bit more specificity, particularly about how activity affects hydration needs, Kriegler suggests the following equation: "Half an ounce per pound of body weight per day is a good estimate. And then add another 16 to 24 ounces per hour of sweating."

For example, a 160-pound person would plan on consuming 80 ounces, preferably evenly staggered throughout the day, and drink an additional 20 or so ounces during or around an hourlong workout.

TIMING YOUR HYDRATION

While 100 ounces may seem like a large amount, sipping water throughout the day makes it manageable — and more beneficial than chugging it all at once to make up a deficit.

Build a habit of sipping water intermittently and regularly. Start as soon as you wake up, says Kriegler, to compensate for water lost through respiration and perspiration overnight.

Slow down your consumption later in the day. Downing glass after glass, especially toward the end of the day, can not only lead to overhydration but also cause you to feel bloated, lose your appetite, and wake up throughout the night.

Kriegler adds that some people might choose to avoid consuming fluids around mealtimes if drinking water with food causes digestive discomfort.

For exercisers, the American College of Sports Medicine advises drinking water slowly and moderately in the hours before a workout and sipping throughout your workout, regardless of whether you feel thirsty.

THE TROUBLE **WITH TOO LITTLE**

Even a moderate level of underhydration has significant effects on your body. By some estimates, a mere 2 percent loss of body mass from dehydration can affect cognition, causing fuzzy thinking and impaired memory. Skin becomes drier. Muscles tire more quickly and become prone to cramping.

Blood, which is more than 80 percent water, thickens in the face of fluid depletion. This forces your cardiac system to work harder and reduces your body's ability to deliver nutrients, energy, and oxygen to the tissues that need it, says Kriegler.

Cell metabolism slows down. Our kidneys require water to usher out waste, and without adequate fluids, that waste can build up in the body, potentially resulting in painful kidney stones.

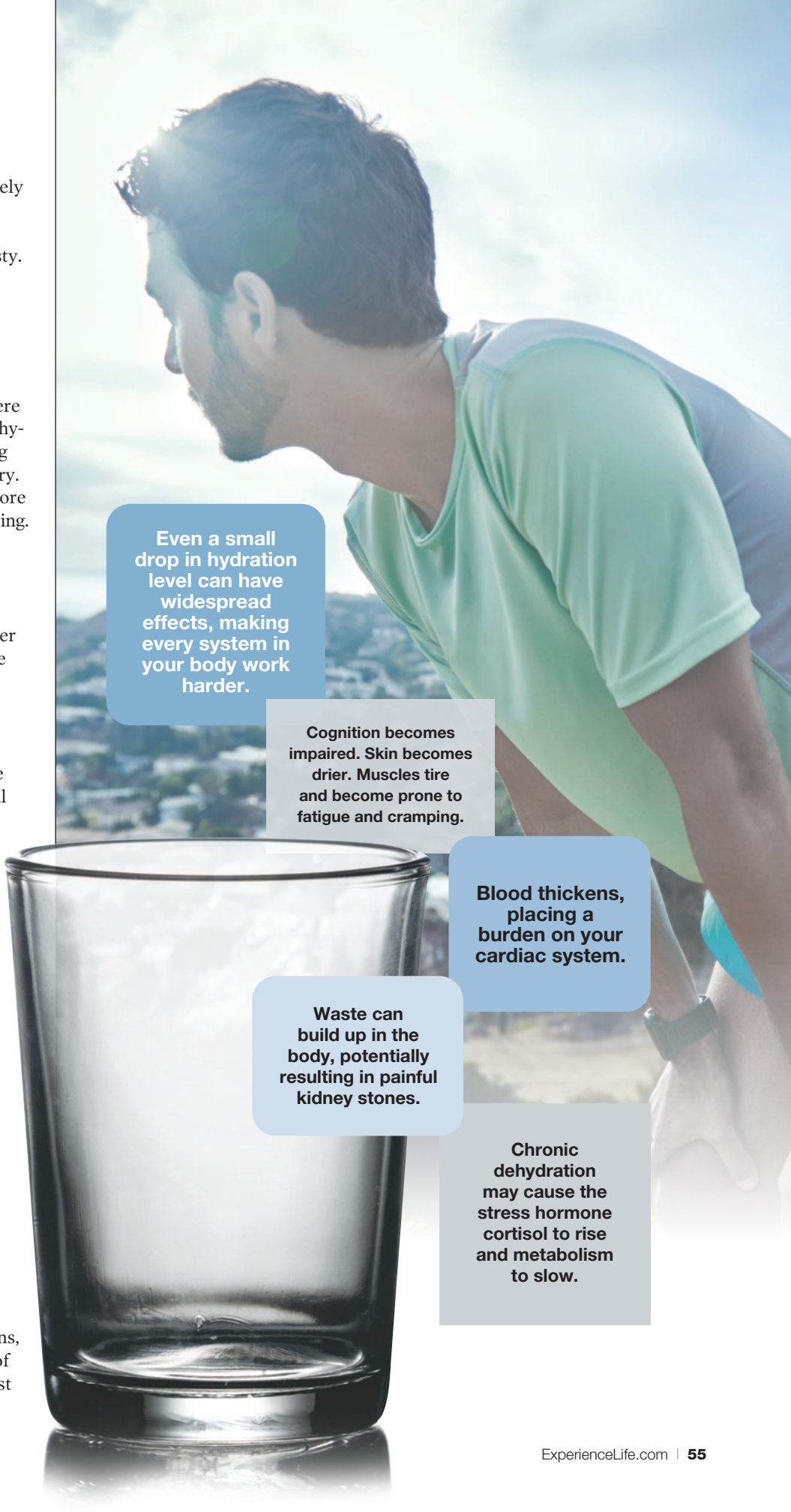
"Everything your body tries to do gets harder when you're dehydrated," he concludes.

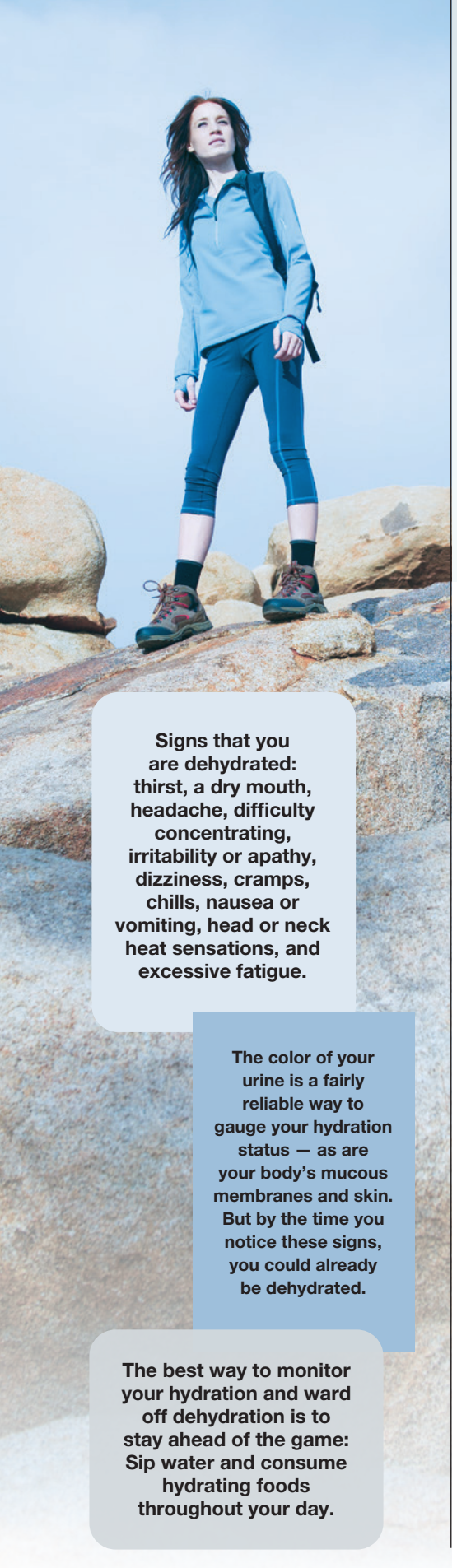
Moreover, explains Kavouras, "low drinkers" produce higher levels of the stress hormone cortisol and often experience slower metabolism. They're at more risk of developing hyperglycemia and chronic kidney disease.

DECODING **DEHYDRATION**

Checking the color of your urine is a fairly reliable way to gauge your hydration status. A burnt-orange color could signal dehydration; pale yellow is generally considered ideal.

But the color of your urine can be affected by other things as well, including certain foods, medications, vitamins, and supplements, some of which can make pee glow an almost neon yellow or orange.





Signs that you are dehydrated: thirst, a dry mouth, headache, difficulty concentrating, irritability or apathy, dizziness, cramps, chills, nausea or vomiting, head or neck heat sensations, and excessive fatigue.

The color of your urine is a fairly reliable way to gauge your hydration status — as are your body's mucous membranes and skin. But by the time you notice these signs, you could already be dehydrated.

The best way to monitor your hydration and ward off dehydration is to stay ahead of the game: Sip water and consume hydrating foods throughout your day.

> "90 PERCENT OF THE TIME, PLAIN, STILL, FILTERED WATER IS BEST TO KEEP YOU HYDRATED."

Even without this interference, though, by the time you notice your urine is a concerning color your hydration dial might be turned too far in the wrong direction. Thirst, dry mouth, headaches, difficulty concentrating, irritability or apathy, dizziness, cramps, chills, nausea or vomiting, head or neck heat sensations, and excessive fatigue are all signs that you are dehydrated.

Don't wait until you notice these symptoms before taking your next drink. To assess underhydration before any painful consequences set in, consider your body's mucous membranes and skin. Does your mouth feel dry or sticky? If you pinch the skin, does it smooth out or stay tented?

Many people have little to no idea that they are in a depleted state, says Kavouras, and that lack of awareness can quickly become dangerous when combined with exercise. During an hourlong workout in moderate conditions, an average person will sweat out about a liter of water, or about 2 pounds of body weight. That's approximately one large water bottle. During a high-intensity session in hot conditions, the loss can be closer to two liters or more per hour.

Excessive dehydration is associated with a decline in athletic performance: Your lungs may begin to labor, and your heart may race dangerously beyond what is normal for you at that level of exertion. At the same time, your cardiac output — the amount of blood that your beating heart can move through your vessels — declines.

Not only do your working muscles receive less oxygen, but less blood flows toward your skin surface and heat begins to build up at your body's core. Extreme water loss could lead to fainting or collapse.

RARE **OVERHYDRATION** DANGERS

Drinking too much water is less common than underconsuming it, but the consequences of extreme overhydration can be as dangerous as those associated with dehydration. (You may remember the headlines in the 2000s and 2010s warning marathon runners of the "deadly dangers" of overdoing their water intake.)

That's because overhydration can dilute sodium levels in the blood. This can cause conditions like hyponatremia (an electrolyte imbalance) and water intoxication (a rare phenomenon that occurs when water intake exceeds the amount of water excreted by the kidneys).

"If you're chugging gallons of water to power through long workouts, it can flush out necessary minerals," explains human-performance advisor Will Maloney, national program manager for virtual training at Life Time. "One can oversaturate cells when drinking more than what is needed, and this won't help with hydration."

"When the sodium levels start to drop, the first thing people notice is they start getting angry," says salt expert Darryl Bosshardt, BS, of Redmond Real Salt. "They start getting short with people. Then they get a headache. Then they'll start getting muscle cramps; digestion starts to go. It's just a cascade."

Left unchecked, that cascade can culminate in hyponatremia, in which the sodium levels become diluted,

which in turn causes swelling in cells throughout the body, including the brain. As pressure increases within the skull, so does the risk of coma, brain damage, and even death.

This is not a concern for folks who work out once a day for an hour or less and recover with food and water. But for endurance runners, cyclists, hikers, and other athletes who exercise for hours or even days on end, maintaining a fairly precise blood chemistry can be extremely important.

EXPLORING **ENHANCEMENTS**

The hydration market is full of electrolyte supplements and vitamin-infused drinks, but for most of us, plain water is just fine, especially if we're working out for an hour or less at a time. "I would say that 90 percent of the time, plain, still, filtered water is best to keep you hydrated," Kavouras advises.

That said, there are occasions when you may want to dress up your H_2O: when it's particularly hot, when you're taking part in intense exercise or a longer-duration physical activity, and especially when you combine the two.

If your workout lasts an hour or less, stick to plain, flat water. (Carbonated beverages are fine, but they add air to your stomach, so you feel full and may stop drinking before you're optimally rehydrated.)

If your workout lasts longer than an hour, and especially if it lasts longer than three hours, you'll want a hydration solution that replenishes sodium and other minerals (and potentially carbohydrates as well). For most people, adding a pinch of salt to plain water is a great first step, says Kriegler. You'll probably see a boost in your energy and performance with this small change. For flavor, try adding a squeeze of lemon juice.

If you choose to add an electrolyte powder or tablet to your water, Maloney recommends choosing products that contain calcium, magnesium, phosphorus, and potassium as well as sodium.

WHAT COUNTS AS WATER

Although past recommendations have stated that only plain H_2O counted toward the daily total, the National Academy of Medicine now reports that almost any nonalcoholic fluid will do — water, juice, tea, even coffee.

But just because almost any fluid "counts" doesn't make it a good choice for your health. Coffee and some teas are mild diuretics, meaning they will flush water out. While these beverages can be enjoyed in moderation, Maloney advises leaving them out of your official hydration count. This will help you keep the focus on water.

Some people add electrolytes or choose enhanced water because they don't like the taste of plain water. If adding flavor helps you drink enough water, great — just beware of overdoing it. Yes, your body needs salt, but it's possible to drink too much salty water. (One sign that you've overdone it is swelling of the extremities — take note if your jewelry or socks feel tight.)

And many enhanced waters contain added sugar; this might be helpful if you've been working out and need the extra carbohydrates for energy, but in general it's best to limit sugary beverages. Try adding slices of cucumbers, strawberries, or other fruits to a pitcher of water to add flavor in lieu of salt or sugar.

In fact, many food sources, particularly vegetables and fruits, are natural hydrators and contain necessary minerals. Leafy greens on the paler green end of the spectrum, such as romaine and butter lettuces, are almost 95 percent water.

Cucumbers, cabbage, watermelon, oranges, and grapefruit are all good picks, too.

Don't feel limited by this list, though. Find produce you love, and enjoy some vegetables or fruit as part of every meal. ◔

SARAH TUFF is a Colorado-based outdoors, health, fitness, and nutrition writer.

MAKE YOUR OWN SPORTS DRINK

An effective sports drink contains water for hydration, carbohydrates for fuel, and electrolytes (particularly sodium and potassium) for regulating blood pressure and muscle contractions. This combination can help stave off dehydration and overheating and improve performance.

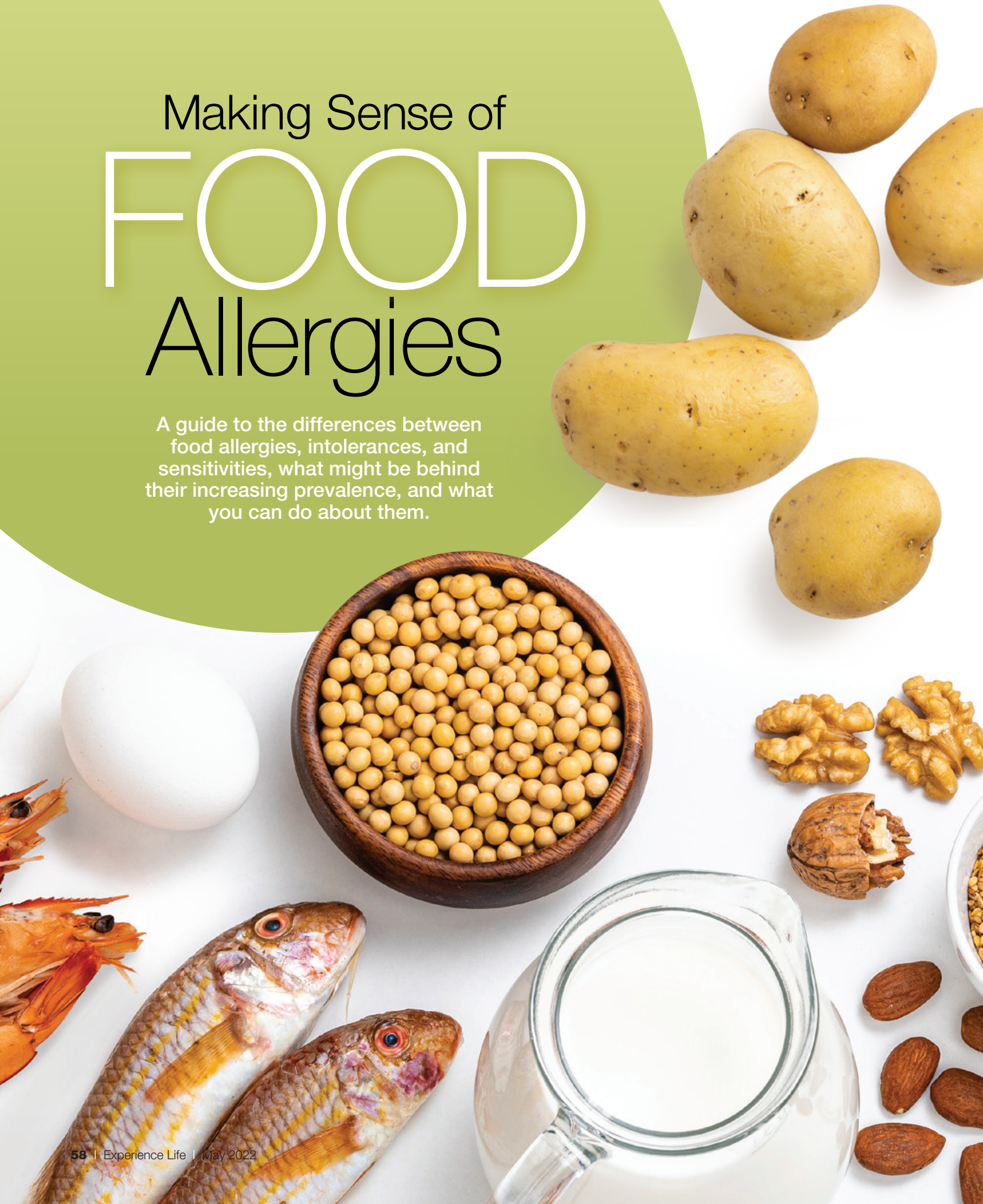
Want to make your own? Try this basic DIY recipe.

- 4 cups water
- 1 cup fresh-squeezed orange juice
- 2 tbs. raw honey
- ¼ tsp. sea salt
- Couple of trace-mineral drops (optional)

Combine ingredients and enjoy as needed during or following higher-intensity activities that last more than 60 minutes and take place in extreme temperatures (hot or cold). Store the mixture in the refrigerator for up to five days.

Making Sense of FOOD Allergies

A guide to the differences between food allergies, intolerances, and sensitivities, what might be behind their increasing prevalence, and what you can do about them.



BY **MO PERRY**

Seven years ago, at age 28, Taj Ruler was diagnosed with ulcerative colitis, a harsh form of inflammatory bowel disease (IBD). The Minneapolis-based performing artist had suffered from chronic stomach pain and frequent, urgent trips to the bathroom for some time before a colonoscopy led to her diagnosis.

Given that many of her symptoms matched those caused by food sensitivities, she worked with a nutritionist to test for them. The results panel, with its color-coded system of green, yellow, and red to indicate severity, revealed that her body was responding poorly to multiple foods.

"The only one that was red was chocolate — that was a real bummer!" Ruler recalls.

> **"I'm learning there's a lot that I can have in moderation."**

But a host of other foods also seemed to be causing uncomfortable gastrointestinal (GI) symptoms for her. So, with the help of her nutritionist, Ruler embarked on a strict elimination diet.

For the first week, she was limited to peaches, bananas, avocados, and sweet potatoes — some of the only foods that didn't show a reaction on her food panel. "That really sucked," she says. "I made a lot of smoothies."

Her symptoms began to stabilize through an approach that combined diet, medication, and support for mental health, and she was gradually able to reintroduce more foods. Today, she follows what she calls "a kind of expanded paleo diet," which includes staples she once feared she'd never be able to eat again, such as rice and potatoes.

"Now it's all about experimenting with what foods feel good and which are still challenging for my body to process," she explains. "I'm learning there's a lot that I can have in moderation."

Time and patience were key for Ruler to feel ready to start expanding her diet. "For a while, food was scary because of how it could make my body feel. It took a lot of trying things in small doses. Now I'm able to have things I couldn't have for years because I was too scared. One day, I'm really hoping to add chocolate back in."

She is far from alone in navigating the challenging world of food reactivity. Food allergies, intolerances, and sensitivities are all on the rise. Our experts answer common questions about food reactivity and offer ideas for how to cope.

What is a food allergy?

"'FOOD ALLERGY' has become a blanket term for a negative reaction to food," says Northwestern University pediatrics and medicine professor Ruchi Gupta, MD, MPH, author of *Food Without Fear: Identify, Prevent, and Treat Food Allergies, Intolerances, and Sensitivities*. But the term is often used incorrectly.

Precisely defined, a food allergy is a medical condition in which exposure to a food triggers an immediate, marked immune response. These typically involve immunoglobulin E (IgE) antibodies but occasionally involve different parts of the immune system.

"Antibodies are like guided missiles that the immune system produces against things like viruses but also against foods," explains naturopath Dan Lukaczer, ND, director of medical education at the Institute for Functional Medicine. While food sensitivities can also involve the immune system (more on that later), allergies are usually distinguished by the involvement of IgE antibodies. These antibodies can be identified with blood tests.

The symptoms can range from mild (an itchy or tingling mouth, a few hives) to severe (tongue swelling, difficulty breathing). In some people, a food allergy can trigger anaphylaxis — tightening in the airways, a severe drop in blood pressure, and loss of consciousness.

"With food allergies [involving IgE antibodies], the reaction is immediate and sometimes dramatic, often occurring within seconds to minutes," Lukaczer says. And it doesn't take much of the offending food to cause a response. "Small amounts, such as one strawberry or a small amount of dairy, can cause reactions."

What is a food sensitivity?

FOOD SENSITIVITIES are a tricky category, and definitions vary. One theory suggests that, like allergies, they may involve an immune response, though they activate a different antibody, immunoglobulin G (IgG). "Food sensitivity is an immunologic reaction in the same way that allergy is, but it's delayed, with reactions usually occurring after hours or days," says naturopathic doctor Sara Jean Barrett, ND, a holistic and functional-medicine practitioner in Minneapolis.

Gluten, corn, dairy, soy, and eggs are some of the best-known triggers for food sensitivities. Reactions can include joint pain, stomach pain, fatigue, rashes, and brain fog.

Because symptoms of food sensitivity often occur hours or days after a food is consumed, identifying triggers can be more of a challenge. "If you eat something on Monday and have a migraine on Wednesday, it can be harder to connect the cause and effect," says Lukaczer.

Many tests claim to identify sensitivities by testing for IgG antibodies. But unlike allergy tests, IgG tests aren't standardized, and many providers believe they should be used with caution. 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.

"If you're eating something and have no symptoms, don't take it out of your diet just because a test shows something," Gupta says.

Others feel differently. Lukaczer believes that IgG tests can be valuable if used judiciously. "You have to use tests with a degree of balance in the context of each patient." If someone is experiencing symptoms, a food-sensitivity test can help inform treatment.

"The gold standard of testing is eliminating a food and seeing if there's improvement. An IgG food-sensitivity test gives me a road map to see which ones we may want to assess," he says. "It can help narrow the field."

What is a food intolerance?

SOME SYMPTOMS of food intolerance (such as stomach pain and nausea) can overlap with those of allergy, but an intolerance does not involve the immune system. It usually occurs when a person's body doesn't produce an enzyme needed to digest a certain food. For instance, lactose intolerance is the result of the body not making enough lactase, the enzyme that digests milk sugars.

Symptoms of an intolerance — bloating, cramps, diarrhea — generally involve the GI tract, but they can also extend to headaches and mental fogginess, says Gupta. "These symptoms are uncomfortable but not life threatening."

Common food intolerances include lactose, caffeine, and eggs.

Some of these can be acquired with age, says Barrett. Nutrient deficiencies can reduce our ability to make digestive enzymes, as can illness, infection, and medications that affect the gut.

Intolerances can also be tricky to pin down, Barrett notes, because you can't test for them in the blood. They can only be identified by eliminating the suspected food and seeing if symptoms improve.

What are common triggers for food intolerances and sensitivities?

FOOD INTOLERANCES and sensitivities are typically preceded by the development of a leaky gut. The list of factors that can contribute to the condition is a long one: acid blockers, nonsteroidal anti-inflammatory drugs (NSAIDs), stress, parasites, unfriendly bacteria, alcohol, a low-fiber diet, zinc insufficiency, additives in processed foods, common chemicals and pesticides, and more.

When any of these factors stress the GI system, gaps may form between the junctures of the gut lining. This allows food proteins to escape into the bloodstream, where the immune system sees them as invaders to be vanquished.

"To make an IgG reaction, a string of amino acids from a food slips into the bloodstream and triggers an immune response. There needs to be gut permeability for that to happen," Barrett explains.

(For more on leaky gut syndrome, see ELmag.com/leakygut.)

Is food reactivity on the rise?

ACCORDING TO A STUDY published in 2019 that included 40,443 participants, about 10.8 percent of Americans have an allergy to one or more foods. People can be allergic to any food, but the nine most common culprits are peanuts, milk, shellfish, tree nuts, eggs, finfish, wheat, soy, and sesame.

About twice as many — one in five — American adults believe they're allergic to a food, says Gupta. "But half of those folks may be suffering from another food-related condition, such as an intolerance."

In the 2019 study referenced above, Gupta and her coauthors found that nearly half of the participants reporting food allergies had developed at least one of them as an adult.

"Food allergies are not just a childhood thing anymore," she notes. Shellfish are the most common adult-onset allergen, but allergists are seeing increasing reactions to the other top-nine foods.

Food allergies are also on the rise in kids. Allergic reactions in children increased by 50 percent between 1997 and 2011, according to the Centers for Disease Control and Prevention. Between 1997 and 2008, the prevalence of a peanut or tree-nut allergy in U.S. children more than tripled. In Gupta's research, one in five parents reported having taken their child to the ER in the past year for a food-related allergic reaction.

There's no single trigger for this dramatic rise in food allergies, although there are several likely culprits. A 2018 study of 792,130 infants, published in *JAMA Pediatrics*, found that babies who were given acid-suppressive medications or antibiotics in the first six months of life had an increased risk of developing nearly every kind of allergy, including food allergies. "Not having the right [gut] bacteria in the right quantities is one of the top hypotheses for the rise in food allergies," says Gupta.

Other contributing factors may include overly sanitized environments and the low-fiber standard American diet, which weakens the gut microbiome.

Widespread use of antibiotics and NSAIDs and exposure to chemical pesticides and environmental toxins have been implicated in damaging the gut lining and triggering leaky gut. This can lead to allergies, intolerances, and sensitivites to food. (For more on repairing a leaky gut, see "The Little Molecule That Could" on page 38.)

10.8%
of Americans have an allergy to one or more foods.

What chronic conditions might be exacerbated by food reactivity?

"IRRITABLE BOWEL SYNDROME (IBS) is high on the list," says Lukaczer. IBS symptoms can include constipation, diarrhea, gas, and bloating.

Crohn's disease, ulcerative colitis, and other inflammatory bowel diseases (IBD) are also not directly caused by food reactivity. These are immune-mediated autoinflammatory conditions with a genetic component. But, as in Ruler's case, food sensitivities can make symptoms worse. And children diagnosed with IBD also tend to struggle with IgE-mediated food allergies.

Autoimmune conditions share some common underlying factors with food allergies and reactions, particularly leaky gut. "When I see someone with an autoimmune disease, I think of increased intestinal permeability," says Lukaczer. Eliminating foods that may be causing an immune response can mitigate symptoms while allowing the gut to heal.

Do environmental toxins play a role in food reactivity?

IN 2021 a group of Yale immunobiologists published a paper in the journal *Cell* arguing that substances in processed food, as well as chemicals in common household items such as dishwashing detergent, might be disrupting our normal immune response to food. When the immune system encounters noxious substances along with food, they note, this can cause "the immune system to react to food proteins the way it would react to toxic substances."

Glyphosate — an ingredient in the herbicide Roundup, which is commonly sprayed on corn, soybeans, wheat, and oats — has also been shown to damage the gut lining and disturb the microbiome. Some research suggests that widespread use of glyphosate might be linked to the rise of celiac disease, an autoimmune condition in which dietary gluten damages the small intestine.

Mercury in fish can also contribute to gut permeability, says Lukaczer.

Can food reactivity be healed?

VARIOUS STRATEGIES have been employed to curb intolerances, sensitivities, and even many allergies.

Providing the digestive enzyme the body is missing can help ease intolerances, says Barrett. Two over-the-counter options are Lactaid, which offers the lactase enzyme to break down lactose in dairy products; and Beano (alpha-galactosidase), an enzyme that digests galactose, a simple sugar found in beans, broccoli, cruciferous vegetables, and some grains.

"Sometimes we can figure out why someone isn't making an enzyme and work on that too," she adds.

Many sensitivities can be healed over time. "If you can avoid the food long enough and do enough gut healing, you can slowly reintroduce the food and not have the same immune reaction," Barrett explains.

> **"Then over time, people can often reintroduce foods in moderation or in rotation."**

Healing a leaky gut can have a profound effect on improving symptoms such as migraines or IBS. "Then over time, people can often reintroduce foods in moderation or in rotation," says Lukaczer.

Not all food allergies can be resolved — and when anaphylaxis is a potential, it often feels too risky to experiment. But Gupta notes that we now have the first FDA-approved oral immunotherapy (OIT) for peanut allergies in children. OIT trials for other foods are showing promise, and clinical trials are under way for epicutaneous and sublingual immunotherapy options for food allergies.

Additionally, researchers are studying biologics as combination and standalone therapy. (Make sure to discuss treatment options with your allergist.)

That's hopeful news for people struggling with life-threatening allergies, for whom the worry of accidentally eating the problem food is ever-present.

Does food reactivity increase the risk of disordered eating?

IT CAN, because it often necessarily identifies otherwise wholesome foods as harmful. "We have to be careful to talk about food in a way that doesn't create orthorexia," says Barrett. Orthorexia is an eating disorder in which someone is fixated on eating only "good" or "healthy" foods. "We want to focus instead on what makes your body feel good, rather than saying, 'This is a bad food.'"

Lukaczer sometimes sees patients who believe they're reactive to many foods after seeing their score on a food-sensitivity test. "But they're still not doing well after eliminating those foods, so there's something else going on." He focuses on helping them improve their digestion and gut health while decreasing their exposure to toxins and improving their nutrition, with an eye toward aiding them as they expand their diet as much as possible.

As in Ruler's case, sometimes people who have experienced negative reactions to certain foods can be understandably fearful about reincorporating them. Working with a functional nutritionist or doctor can be helpful in these cases.

Why is it important to reintroduce foods over time, when possible?

DIFFERENT FOODS deliver a range of nutrients and fiber, so maintaining a broad diet helps nurture a diverse gut microbiome. And restrictions can be stressful, so having fewer of them can be easier on the mind.

"For both mental and physical health, it's really important to eat the widest variety of foods possible," Barrett says. When she identifies several foods that may be contributing to a patient's symptoms, she advises reintroducing the foods one at a time after an elimination period to see if they cause a reaction. If a food does cause a reaction, she asks the patient to try it again in another few months. "With an allergy you wouldn't do that, but a sensitivity may be overcome, so we want to try to reintroduce those foods."

It's also important to pay attention to your body so you can identify what really doesn't work. "Not everyone can eat everything again," says Lukaczer. "Sometimes a person just doesn't do well with corn or dairy or gluten — but that doesn't mean they should stay away from *all* of them."

If you find yourself shying away from a food group solely because you're afraid it will cause trouble, try adding those foods in, even in small amounts. Doing so will support microbial diversity in your gut — and probably make eating more pleasurable.

What are the best strategies for coping with and recovering from food reactivity?

IF SYMPTOMS are severe and complicated by other diagnoses, such as an autoimmune condition, Barrett recommends working with a functional-medicine practitioner or nutritionist for support. Those dealing with mild symptoms might opt to start with some DIY experimentation in the form of a simple elimination diet, such as Whole30, or the elimination diet protocol developed by the Institute for Functional Medicine. (For details on this protocol, see ELmag.com/ifmdetox.)

"If you do that for a few weeks and feel better, don't just stop. Take the time to do the reintroduction portion," advises Barrett. Try each food for a few days before reintroducing the next one.

Take note of how your body reacts. "The reintroduction piece shines a light on the one food that doesn't agree with you, and it's much simpler to just avoid that one going forward."

When it comes to allergies — and the conditions that can masquerade as allergies, such as lactose intolerance or chemical sensitivities — it's important to get a clear diagnosis and understand what you're dealing with. "You can develop a new allergy, and you can grow out of one," Gupta says. Immunotherapy can be an option for food allergies, and medications can be helpful for conditions such as IBD.

She also suggests looking for connection and support. Advocacy organizations and support groups for people with food allergies or GI disorders share resources and strategies for navigating schools or the workplace. (It's possible to connect in person and virtually.)

One silver lining to the increase in these conditions is the growth in understanding and accommodation. Gupta notes that 85 million people in the United States now avoid buying some type of food because either they or someone in their household is reactive to it. "You're not alone," she says. "Even if it feels that way." ◔

MO PERRY is an *Experience Life* contributing editor.

Tangled Up in Food

HOW TO UNSNARL 5 PROBLEM EATING PATTERNS.

ILLUSTRATIONS: JEROME STUDER

BY **CATHERINE GUTHRIE**

We all do it from time to time: eat dinner while watching TV, inhale a sandwich behind the wheel, down a gratuitous doughnut in front of the computer. When such autopilot experiences are the exception to our usual eating habits, they're no cause for concern. But what about when these patterns become the rule?

"When we don't taste what we eat, we can end up stuffed to the gills but completely unsatisfied," explains Jan Chozen Bays, MD, author of *Mindful Eating: A Guide to Rediscovering a Healthy and Joyful Relationship With Food.* In other words, we may find ourselves with a habit that is taking all the joy out of eating in the present — and is harming our bodies and minds in the long run.

The first step to disentangling ourselves from unhelpful food patterns is the same as for any behavior change: We must become aware of what we're doing, as well as when and how. That's easier said than done, of course, since the very nature of a habit is to operate beneath our notice.

To make these tendencies easier to spot, we've investigated five of the most common problem eating patterns. We've also gathered expert insight on the ways each might affect us and learned how — with awareness and self-compassionate experimentation — we can reclaim our rightful place at the table.

1. SPEED-EATING

Eating too fast is endemic to our harried way of life. "We live too fast, we drive too fast, we talk too fast . . . why should our relationship with food be any different?" asks Marc David, MA, founder of and primary instructor at the Institute for the Psychology of Eating and author of *The Slow Down Diet*. "Learning how to slow down with food is a metaphor for slowing down with life."

There are several negative consequences for eating too fast. First, bolting down food robs us of the full satisfaction of eating, leading us to eat more than we otherwise would. Digestion starts with the brain's sensory experience of seeing food, smelling food, and anticipating food, David explains. "When you eat too quickly, you bypass food's sensory pleasure," he says. "This has the effect of slowing the metabolism and diminishing your body's ability to burn that food as fuel."

Eating too fast also triggers the stress response, which inhibits proper digestion. Any rapid behavior helps trigger the body's fight-or-flight mechanism, David notes. For primal humans, moving quickly usually meant we were in danger. In this state, breath becomes shallow, and blood is channeled away from the digestive organs to the arms and legs so we can run or fight. Digesting lunch wasn't a big priority if a predator was on your heels.

The threats in our current environment may be less immediate, but our basic biochemistry is the same. Scarf down a muffin during rush-hour traffic and the fight-or-flight response is sure to kick into high gear, at which point digestive enzymes dry up. Gut transit time may hasten (causing diarrhea) or slow down (causing constipation). Nutrient absorption grinds to a halt.

SPEED-EATING, CONT.

The way out of this habit is to create new ones. A few ground rules can help prevent hasty eating:

• **Guard mealtime.** David calls on Americans, the consummate speed-eaters, to "reclaim their right to dine." That means dedicating a regular time to sit down at a table and savor your food. Fend off the impulse to check your messages while eating or to down breakfast in your car.

• **Take five to 10 slow, deep breaths before every meal.** This will flip on the body's relaxation response, a built-in protection against stress. Breathing deeply expands the diaphragm, stimulating the vagus nerve, which runs from the brain to the colon and activates the relaxation response, downshifting the fight-or-flight impulse. (For more on the vagus — also known as the gut–brain axis — see ELmag.com/vagus.)

• **Pace yourself.** If you normally eat breakfast in five minutes, try 10. "If you are a fast-and-furious eater, it's time to change gears," says David. "The more time we set aside for a meal, the more we place ourselves in the optimum state of nutritional and calorie-burning metabolism. The less time we take for a meal, the less the body is able to determine when it is full."

2. SECRET SNACKING

If you hide chocolate in your desk drawer or eat chips only in private, it's a sign that you might be adding a heavy dose of moral judgment to your snacks. Sneaking food implies that we believe the food, and probably the appetite for that food, is "bad," says David. "When you label things 'bad,' like any good criminal, you will do it in secret."

Secretive eating also feeds the kind of shame that perpetuates poor eating habits. "Any behavior that takes place in secret tends to go hand in hand with shame," says Michelle May, MD, a mindful-eating speaker and author of *Eat What You Love, Love What You Eat*. "If I eat something 'bad,' then I feel guilty, and I feel like a 'bad' person for doing it."

Unsurprisingly, secret eating often inhibits enjoyment. Compared with actively savoring food, eating in secret is stressful, which means the release of fewer endorphins, the pleasure chemicals that promote digestion.

Endorphins also help assimilate nutrients, boost metabolic response, and enhance satisfaction. "The chemistry of pleasure is intrinsically designed to fuel metabolism," says David. "[But] when food comes with a helping of guilt, the nervous system registers only a minimum of pleasurable sensations, and we are physiologically driven to eat more. We're compelled to hunt down the pleasure we never fully receive, even though it's continually within our grasp."

Eating furtively is also linked to what's known as "eating the feelings." Instead of sitting with an uncomfortable situation, May notes, we seek a quick pleasure-fix through food to help manage or suppress our discomfort.

When the urge strikes to eat behind closed doors, stop and ask yourself what emotion you are trying to escape. "You may think you are overeating 'just because it tastes good' or 'because you lack willpower,'" May adds. Yet that's rarely the case. "The why becomes clear only when you explore the feelings that underlie your actions."

Find your way to the why with these practices:

• **Notice which foods you eat in secret.** What do these foods have in common? Which foods cause the greatest guilt? Next time the urge to stealth-eat strikes, David suggests asking yourself, "What is my body really hungry for?" Other than food, what comes to mind?

• **Don't allow others to shame you.** "There may be people in your life who feel like they can judge what you're eating," says May. "Tell them, 'I appreciate your intention, but when you tell me what I can and can't eat, I feel angry and guilty, and it actually makes me feel like eating more. I'd appreciate it if you'd stop commenting on my food choices.'"

• **Pay attention to what came before.** Note what triggers the desire for a secret snack. What scenario typically sets you off?

• **Redirect your inner rebel.** Sneaking "forbidden" foods can also be a thrill. "There's a part of us that likes breaking the rules," says David, "and engaging in secret eating can be exciting."

If that's true for you, you might try finding other ways to appease your inner rebel. Say, do, or try something a little edgier than you normally would, or look for a way to more openly express your authentic self.

“The calories people binge on usually aren’t salad. It’s hard to make good decisions when you are hungry.”

3. NIGHT-EATING SYNDROME

Regular mealtimes are key to eating more mindfully. “If all day it’s coffee and cottage cheese, then night falls and all hell breaks loose, that’s a sign you’re setting yourself up for overeating and making poor food choices,” says nutritionist Keith Ayoob, EdD, RD, FADA.

This behavior — sometimes called night-eating syndrome (NES) — is typically defined as eating 25 percent of one’s total calories after the evening meal more than three times a week. NES is generally connected with blood sugar: If you have not eaten enough during the day and your body is deprived of food for many hours (and especially if you started the day with a sugary breakfast), blood-sugar levels can nosedive.

That triggers a voracious appetite for quick-energy foods, usually more sugary, simple-carbohydrate snacks. These will make blood sugar rise — but rather than initiate the gentle, rolling hills of energy the body needs to stay on its game, they trigger big blood-sugar spikes and deep valleys. “Our willpower is no match for our physiology,” says nutritionist Annie Kay, MS, RDN, author of *Every Bite Is Divine*. “The biggest determinant of hunger later on is big drops in blood sugar early in the day.”

NES is more common in men than women and often goes hand in hand with weight gain and depression. “The calories people binge on usually aren’t salad,” Ayoob says. “It’s hard to make good decisions when you are hungry.”

These behaviors can help counteract this tendency:

- **At each meal, plan the next.** At breakfast, think ahead to lunch. Decide what you want to make or which leftovers to take to work. After dinner, consider tomorrow’s breakfast. Maybe slice some strawberries to pair with yogurt or make a couple of hard-boiled eggs.

  It may feel tedious at first, but a supportive eating routine involves a certain amount of advance planning, says Ayoob. “That doesn’t mean you can’t ever have treats or be spontaneous,” he offers. “It just means that planning and prepping is a must.”

- **Make sure each meal includes protein.** Although bowls of oatmeal and pasta are comforting, they can set you up for a blood-sugar crash. Put high-quality protein on the plate for each meal. (This also applies to vegetarians — nuts, beans, and tempeh will help you stay grounded.) Snacks can also be protein-rich. Consider a fistful of almonds or a hard-boiled egg with hot sauce.

- **Plan a preemptive strike against the postwork binge.** We often ignore the body’s needs for nourishment during the working day, either because we’re too distracted or feel too busy to eat. “After work, when the brain finally gets permission to attend to our physical needs, the body is as ravenous as a neglected dog, and so we tend to overeat,” says David.

  He suggests eating a high-fiber, protein-rich snack before dinner. This will take the edge off extreme hunger and help prevent the urge to binge later.

4. STRESS-EATING

Most of us know the feeling — we've just endured a stressful scenario, and we're suddenly gripped with an urge to eat everything in sight.

These cravings come courtesy of cortisol, the hormone our adrenal glands unleash anytime the body faces a real or perceived threat. Elevated cortisol levels can arouse a craving for sugar to fuel the fight-or-flight impulse, even though we don't necessarily feel hungry.

When we eat in this state, the calories are more likely to be used to create visceral abdominal fat, a clever survival strategy the body uses to store fuel for lean times. Stress also reduces the gut's acidity and, consequently, its ability to absorb key nutrients.

All to say, eating when we're hungrier for comfort and safety than actual food does a number on us. But recognizing this tendency will help overcome it. "Noticing that you aren't hungry but you feel like eating is half the battle," says May. "Ask yourself in that moment, 'What else can I do to address this emotion?'"

Here are some other tactics to try when you're tempted to stress-eat:

• **Consider your options.** If stress sends you running to the refrigerator, remind yourself that eating won't erase the stress, says May. Try making a list of things you find relaxing, such as a hot bath or taking your dog to the park. Keep the list on the pantry or refrigerator door. Next time you find yourself reaching for a stress snack, look at the list and consider your alternatives.

• **Notice when the heat is rising.** Do your best to notice the early signs of stress, such as a rapid heartbeat or racing thoughts. "Practicing self-awareness (such as noticing negative self-talk) and taking deep breaths at the first signs of stress can put you on a different path," says Kay.

• **If you give in, let it go.** Berating yourself after a splurge only adds fuel to the fire. It's better to simply acknowledge what happened and move on. "Turning to food at times of stress is part of being human," says Eunice Chen, PhD, principal investigator for the Temple Eating Disorders program at Temple University. "Stress-eating only becomes a real problem when it's your only way to deal with stress."

> The only thing that will cure this fundamental kind of hunger is to sit down and be, even for a few minutes, wholly present."

5. MINDLESS EATING

You plunk down on the couch with a full bag of chips, and before you know it, the bag is empty. Or you sit down at your desk with a sandwich, check your email, and suddenly there's nothing but crumbs.

The sad reality of mindless eating is that it leaves us empty, even when we're technically full. And then we keep searching for fulfillment. "If we don't feel satisfied, we'll look around for something more or something different to eat. Everyone has had the experience of roaming the kitchen, opening cupboards and doors, searching in vain for something, anything, to satisfy," explains Chozen Bays.

But she believes the solution is straightforward, if not always easy. "The only thing that will cure this fundamental kind of hunger is to sit down and be, even for a few minutes, wholly present."

These are ways to offset the negative effects of mindless eating:

• **When you eat, just eat.** If you're going to have a meal or snack, eat it before you begin doing anything else. Then clean up and put all food away. If you tend to eat while watching TV, try replacing eating with another activity: folding laundry, holding a mug of hot tea, lifting weights, knitting.

• **Make the mechanisms of mindless eating work for you.** If you know your habit is to grab the first thing in the fridge and eat it when you get home from work, make sure the first thing you grab is something like a tub of hummus and a container of prepped raw veggies. Or if you're just not ready to give up eating the occasional dinner in front of the TV, decide that salads are the only thing you eat while you're watching shows.

• **Use your dishes.** Even if you just want a handful of chips, put them on a plate. Plating food increases our awareness of portion size; it also makes us aware of the fact that we are, indeed, eating food at this moment.

Recognition is always the first step. From there, change often flows naturally. If you start by implementing one or two of these shifts, you might be surprised by how many others come along for the ride. You might also be shocked by how much you discover about yourself in the process.

"The antidote to modern food culture is bringing more self-inquiry into your day," says Kay. "This is far from a chore — it's a juicy opportunity to delve into what's going on in your body and mind."

CATHERINE GUTHRIE is an *Experience Life* contributing editor.

7 DAYS TO HELP YOU PRIORITIZE YOUR HEALTH & WELL-BEING

Self-Care
SUMMIT

May 10 - May 16, 2022
FREE ONLINE SUMMIT

Learn how the 7 pillars of Self-Care can improve your health and well-being, featuring 35 experts to guide you:

Physical Self-Care

Emotional & Mental Self-Care

Social & Relationship Self-Care

Professional & Career Self-Care

Spiritual Self-Care

Financial Self-Care

Creating a Self-Care Plan

REGISTER NOW FOR FREE

SUMMIT SPONSORED BY:
Experience Life

Visit:
www.SelfCareSummit.Life

Real Life

“Local farmers have your interests at heart. They’re growing for their community and for people they know and care about.”

— Angel Dobrow, community-supported agriculture (CSA) proponent

Page 82

Learn more about the many benefits of CSA — for you, your community, and your environment.

Young Chefs

It's never too early — or too late — to introduce your kids to the life skills learned in the kitchen.

BY **JILL PATTON, FMCHC**

Raising healthy eaters is no small feat. After all, you can match wills with a 6-year-old staring down a broccoli floret for only so long. But it may be easier than you think to persuade your kids to experiment with new foods.

Just hand them an apron and invite them to join you in the kitchen.

"Cooking really gets kids excited," says Dawn Susi, associate director of programs at Common Threads, an Austin, Texas-based national nonprofit that provides cooking and nutrition education to families. "The more they're involved, the more likely they are to eat what they've helped to prepare."

All that seeing, smelling, touching, and tasting adds up to a willingness to try new foods. But inviting children to help in the kitchen does more than encourage adventurous eating: It also empowers them to accept greater responsibilities and participate in family life in new ways. It fosters creativity and independence. And it makes positive memories around food and family — for you and your kids.

Setting Expectations

Of course, you can't just hand your preschooler a paring knife and put her to work.

"Supervision and safety are always top priorities," says Susi, who suggests setting ground rules for preteens, such as always asking permission to work in the kitchen. Basic sanitation is also important, so reinforce handwashing and take steps to prevent cross-contamination in age-appropriate ways while working with food. (For more information on food safety, see page 42.)

That said, the kitchen can also be a place for kids to experiment with managed risks.

"I really believe in risk-taking and resilience," says Shana Henry, a former Waldorf educator and now program director at Skyline Camp and Retreat Center in Almont, Mich., which offers cooking and nature-based classes for children and adults. "There are great kid-safe knives made of hard plastic that you can use with little ones."

Yes, even preschoolers, Henry says, as long as they're supervised.

Just as you'll set ground rules for your kids, you'll want to manage your own expectations. Depending on how many children you're wrangling — and how old they are — it might be best not to aim to get dinner on the table by 6:30 on a Tuesday.

> **The more they're involved,** the more likely they are to eat what they've helped to prepare."

"Avoid time constraints," advises registered dietitian Molly Pass, MPH, RD, a consultant with the Life Time Foundation. "You don't want anything that's going to make kids feel rushed or agitated." Set aside weekend time or focus on one recipe rather than a full meal.

Every kid is different, of course, so consider the following expert-sourced guidelines and age-appropriate kitchen tasks — they can help set you and your young ones up for cooking success.

AGE 3 AND UNDER

Toddlers are eager to help, so get them started with tasks little hands can manage, such as tearing, kneading, and squishing. Draw their attention to the textures of different ingredients. Let them taste what they're helping to prepare. "It's all about getting them comfortable with food," says Susi.

Making marinara? Let your kiddo tear the leaves from a sprig of basil. Rough-chop some tomatoes, put them in a bowl, and watch your toddler mash them up to break them down further. "You're not worried about the mess," notes Henry. "You're basically going to let this child play with some tomatoes while you're getting everything else done."

Even babies benefit from spending time in the kitchen. "They're developing their senses, so put them in a highchair where they can watch and take in the sounds of cooking," suggests Pass. "Talk to them while you cook and let them play with a spoon."

Tasks the smallest chefs might enjoy:

- Mixing batter with their hands
- Tearing herb leaves off stems
- Mashing up well-cooked potatoes (cooled to room temperature)
- Kneading dough
- Tipping out measured spices or other ingredients into bowls
- Practicing cutting soft foods with a safety knife if they're ready

AGE 4 THROUGH 6

As fine-motor skills become more developed, kids' help in the kitchen can start to become more . . . helpful.

"Give them little tasks they can do on their own," advises Susi. "That's going to create that sense of pride and independence."

A little planning on your part can make everyone's experience more enjoyable. For instance, you can prep veggies and other ingredients and put them in bowls, then ask the children to assemble salads or pizzas.

Teach them to set the table by first having them follow you, adding a spoon after you place the forks and knives. Consider moving some dishes to lower cabinets so kids can be responsible for getting them out and putting them away.

"You don't need to use plastic dishware to cook with kids of any age, really," adds Henry. "You just teach them very young to walk slowly and to take care of their things. When something breaks, you clean it up and get over it."

Some tasks the kindergarten set is ready to handle:

- Cracking eggs (you'll have to fish out some shell bits, and make sure they wash their hands!)
- Washing vegetables
- Cutting soft veggies and fruits with a safety knife
- Tearing salad greens
- Setting the table
- Clearing the table
- Rinsing dishes

AGE 7 THROUGH 10

This group is ready to take on more demanding tasks with less supervision. "There will always be hazards in the kitchen," Susi admits, "but you can take a bit more of a hands-off approach at this age."

Ask youngsters to peel vegetables, scoop avocados, and pour liquids. "They can spoon out cookie dough and make beef patties," suggests Pass. "If you're making kebabs, they can skewer the meat and veggies in a pattern — that's where their creativity comes in."

Kids who already have some kitchen hours under their belts may be ready to cook more independently, says Henry. "If they've been cooking since they were little, by now they're able to follow a recipe." And if not, now is the time to introduce this skill.

Following recipes reinforces the math, reading, and science they're learning in school. "'I need half a cup of sugar: What does that mean? How do I do that?' Kids in this age range are capable of figuring that out," notes Pass.

Some tasks grade-schoolers are ready to take on:

- Cutting and peeling veggies
- Slicing bread
- Using a Microplane
- Using a can opener
- Putting trays and pans into ovens
- Cooking over the stove
- Reading and following a recipe
- Measuring ingredients

AGE 11 AND UP

With each passing year, kids can handle more responsibility and independence. And if this is the age they're just getting started in the kitchen, fear not — they'll catch up quickly.

"Older kids are the ones I have the most fun with, because they have the ability to focus on what you're saying," says Susi. They crave independence and are more willing to watch, learn, and try things on their own. "Obviously you always have that constant supervision and you're reiterating safety techniques," she adds.

But try not to hover over them too much. "Let them experiment a little bit," advises Henry. Give them space to spread their wings, and as they reach their teen years, they'll be confident enough to be the head chef once in a while.

"I've met older children who, by high school, find that taking responsibility for two or three dinners a week brings them joy and purpose," says Henry. "We all need purpose, and for some kids, it's going to be feeding their family."

Some responsibilities you can start turning over to older kids:

- Learning and practicing more advanced knife skills, like dicing and mincing
- Using the stove and oven
- Helping to plan menus and make grocery lists
- Preparing simple meals with minimal supervision
- Cleaning the kitchen and washing dishes

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

Strong workforce.
Healthy company.

A corporate wellness program with Life Time can help reduce healthcare costs and employee absence — while boosting retention, engagement and job satisfaction.

Learn more or refer your company at www.lifetime.life/corporatepartnerships

LIFE TIME®
CORPORATE PARTNERSHIPS

Back to the Roots

Native chef Sean Sherman is striving to decolonize America's idea of food.

BY **DARA MOSKOWITZ GRUMDAHL**

Sean Sherman is a member of the Oglala Lakota Tribe and is America's most prominent Indigenous chef, cooking with Native American ingredients at Owamni, the Minneapolis restaurant he owns with partner Dana Thompson. He also spreads the word on techniques via his cookbook, *The Sioux Chef's Indigenous Kitchen.* Along the way, he has won two James Beard Awards.

Sherman found his path after working for Life Time for a couple of years in the mid-2000s, developing menus for LifeCafes. "I was in Mexico and saw Huicholes, an Indigenous people, selling art. I realized I knew more about French and Italian food than I did about my own food. In one swift move, everything I had to do next opened up to me — I had to open a Native restaurant.

"But first I had to research Indigenous food, because a quick online search showed me almost complete invisibility. So I moved to Montana and just started learning about plants and everything else.

"For the rest of my life, my work is going to be educating about Indigenous foods, supporting Indigenous producers, and training a new generation of cooks to pass on what I've accomplished."

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

HOPE IN THE SHADOW OF TRAGEDIES

Cooking Indigenous food is daunting for many reasons. There aren't many cookbooks or chefs to learn from, for one thing. But more importantly because you have to confront Indigenous tragedies and genocides at every turn. How does Sherman cope?

"I think about our success with Owamni," he says. (The restaurant has drawn rave reviews in the *New York Times* and elsewhere.) "It's a proof of concept that there really is a demand for Indigenous American foods. One day, you'll be able to drive from Maine to Mexico and stop in a dozen Indigenous restaurants along the way. And I think that's enough. I don't have to fix the world; I just have to do everything I can to make it better."

COOKING WITH AWE AND GRATITUDE

Sherman uses a kitchen tool that inspires gratitude in a new way. "We have a 'grinding stump,' a giant mortar and pestle made from a birch log and a big stick: This was how our ancestors ground rice and beans and corn. That gives you gratitude for a blender and awe for what your ancestors accomplished. I really appreciate having reminders in my life of what's important."

INGREDIENT INSPIRATION

Sherman cooks from a "decolonized kitchen," relying on ingredients that were available on this land before Europeans arrived — so no sugar, wheat, chicken, or soybean oil. "We use wild teosinte, which was the grandmother of corn. It took so much work to figure out how to cook with it, and as a chef, that gives me satisfaction."

MAKING SPACE FOR EMOTION

"Nightly, we have people in our restaurant burst into tears. Maybe they have Indigenous heritage and all of a sudden it hits them that they ate a thousand times in an Italian restaurant but never in an Indigenous one. It made me realize: How awesome is it to create a safe space for that emotion to come out?"

LIFE TIME®

CHICAGO

HALF MARATHON SERIES

ONE CITY. TWO RACES.

One city. Two races. 26.2 miles of Chicago's best running routes. Experience the entire Windy City on foot! Kick off the spring on the North Side and race along the South Side cityscapes in the fall. Finish both premium Life Time events and earn an all-encompassing third medal to complement the pair!

North, South. Spring, Fall. Three medals to take home. We'll see you in Chicago.

LIFE TIME

CHICAGO SPRING

HALF MARATHON + 10K

MAY 22, 2022

HOKA

CHICAGO

HALF MARATHON + 5K

SEP. 25, 2022

Hops for Sleep

This plant can ease anxiety and insomnia — especially sleeplessness related to nervous tension.

BY **HENRY EMMONS, MD**

The flowers of the hop plant, called *strobiles*, are famous for their role in beer, especially in bitter microbrews. But hops are useful for much more than beer brewing: Humans have used them as medicine for centuries. In fact, hops are one of the most commonly employed sedatives of all time, and it may have been their reputation as a nerve calmer that inspired their addition to grain fermentation.

Hops as Medicine

Hops are classified as a nervine, an herb that soothes the nervous system. Primarily a calming agent, they're usually used to treat problems of restlessness, nervousness, or anxiety. This includes sleep disruption that involves waking in the night, a classic insomnia pattern.

Using a beer (hoppy or not) to relax is a common practice, and many people become sleepy after drinking one or two. I've seen plenty of people use beer to calm social anxiety. In these cases, however, it is more likely that the alcohol, not the hops, is producing the desired effect. (Beer contains far more fermented grains than hops.)

Although hops in beer could theoretically offer mental-health benefits, alcohol can dysregulate mood in even small doses — especially for those with depression — so it would negate those potential benefits.

And even if quaffing a beer before bedtime helps us calm down and fall asleep, those effects typically wear off before morning. We're likely to wake up in the middle of the night or find ourselves sleeping fitfully.

For a better night's slumber, I suggest skipping the beer and ingesting hops as a tincture or tea instead. In this form, hops can be a wonderful sleep aid.

Hops and Insomnia

Hops influence the brain's primary calming mechanism: the GABA system. This is also targeted by many pharmaceutical sedatives, including Ambien, Ativan, and Valium. I tend to prefer hops to these drugs when treating insomnia.

Insomnia often occurs when we become overstimulated or anxious, and hops help settle that tension. Then, as anxiety eases, stress hormones drop.

Research supports this approach. One 2010 review showed that 12 of 16 studies noted measurable improvement in both sleep quality and the time it took to fall asleep for subjects taking a sleep formula with hops and valerian root. Another study found that a different blend of hops and herbs was as effective as a popular sleep drug.

I also recommend hops for daytime anxiety. If you're prone to sluggish depression, however, avoid them, because they can slow you down even further. In fact, anyone coping with depression needs to be careful when using sedatives, even natural ones.

But if you're highly anxious, hops can take the edge off without clouding your thinking.

The most common side effect is, unsurprisingly, sedation. If hops make you sleepy during the day, use them only at bedtime, and tweak the dose until they improve your sleep without causing morning drowsiness. Also be aware that if you're allergic to birch pollen, you may have an allergic reaction to hops too.

HOPS USE AND DOSAGE

Hops extract: To use hops for sleep, I recommend a freeze-dried extract in a capsule. Capsules contain about 200–300 mg of hops each; start with one, and if you need more, try two.

Hops tincture: Fresh tinctures are more potent than extracts and usually more expensive. The dose can be quite high, typically 1.5–2 grams for bedtime. To treat daytime anxiety, lower the dose to the 300–500 mg range.

Hops tea: For a soothing bedtime tea, put five to 10 dried hop cones in a teapot and cover with 2 cups of boiling water. (The more hops you use, the more bitter and sedating the tea.) Many herbal blends for sleep include hops, often combined with chamomile or peppermint to ease the bitterness.

Hops with other herbs: I prefer using hops combined with other calming herbs, such as passionflower and valerian root. There is a synergetic benefit to herbal combinations, and hops alone aren't always strong enough to resolve serious insomnia. When they're part of a blend, the dose of hops can be much lower, around 100 mg for sleep, or 50 mg for daytime anxiety.

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

Endangered Foods

How the climate crisis is threatening the foods we love.

BY **MICHAEL DREGNI**

It's a sign of the times: In May 2021, a Museum of Endangered Foods exhibition opened. Like animal species on the brink of extinction, many of our favorite foods are now threatened.

The project features stylized displays to tell the story: a honeybee on a stickpin alongside a beaker of honey; a dissected potato; an imperiled cacao bean beside — *gasp* — a chocolate bar. Presented as mementos of the perhaps soon-to-be past, the exhibit is startling, grabbing at your stomach as well as your heart.

"One of the most underestimated consequences of climate crisis [is] the extinction of foods," explain museum creators María Fuentenebro and Mario Mimoso in Madrid, Spain. "When the word 'endangered' crosses our minds, we exclusively think about animals: pandas, rhinos, whales . . . but other life-forms such as plants, and also specifically domesticated and edible plants that we consider foods, are also on the verge of extinction."

Climate change is a key culprit. Extreme weather is hampering growing seasons; changing weather patterns are pushing pests and fungi into new regions.

But there are other things at fault as well. Monocrop farming and genetic modification of our preferred foods have resulted in a loss of species diversity, and this has made the remaining species more vulnerable to pests, molds, fungi, and diseases.

"Our industrialized food system has dramatically reduced the number of crops, breeds of livestock, and types of fish and other aquatic life that are raised, sold, and consumed," says Simran Sethi, author of *Bread, Wine, Chocolate: The Slow Loss of Foods We Love*. "Of the roughly 6,000 plant species used for food, nine account for two-thirds of the world's crop production, and most of our dairy and animal-based protein comes from just a handful of animal species.

"Anytime we reduce the diversity of what is grown, we are increasing risk. It's analogous to putting all of our savings into a small handful of stocks rather than diversifying."

These are four favorite foods that are at risk — and what we can do to help save them from extinction.

Bananas

Among the world's most widely grown fruits, bananas are the most popular: We each eat an average of 130 a year. They may be the canary in the coal mine for endangered foods.

In the late 1990s, a fungus began killing banana crops in Southeast Asia and Australia; it spread to Latin America in 2019.

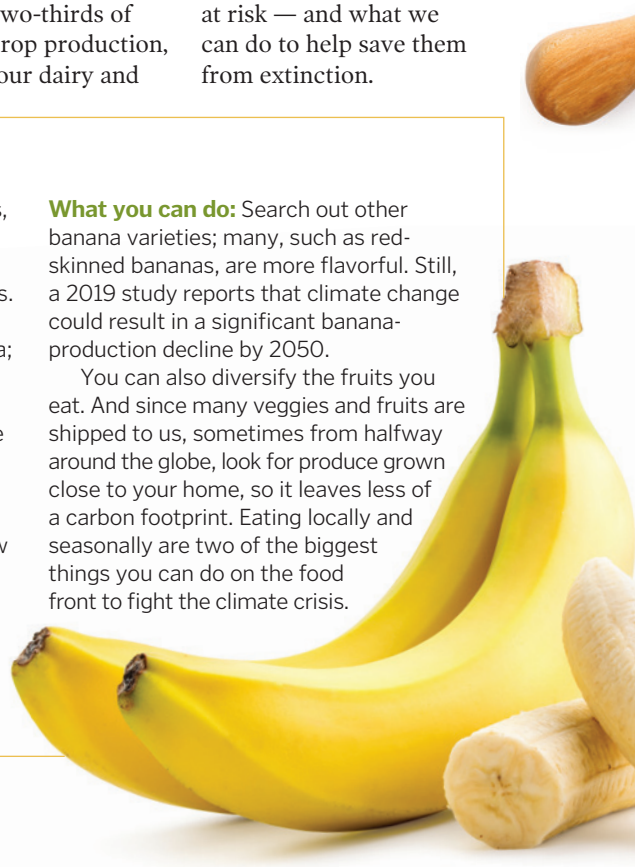
Yet while there are more than 1,000 banana varieties, most of us eat just one: the Cavendish. Although it's not the tastiest, it's one of the hardiest and can survive Big Ag shipping it around the globe.

Because most corporate plantations grow the Cavendish, says Sethi, it has become almost a monocrop, which leaves it precariously vulnerable to threats.

Scientists are striving to create a new genetically modified variety as well as a vaccine. But they haven't saved the banana yet.

What you can do: Search out other banana varieties; many, such as red-skinned bananas, are more flavorful. Still, a 2019 study reports that climate change could result in a significant banana-production decline by 2050.

You can also diversify the fruits you eat. And since many veggies and fruits are shipped to us, sometimes from halfway around the globe, look for produce grown close to your home, so it leaves less of a carbon footprint. Eating locally and seasonally are two of the biggest things you can do on the food front to fight the climate crisis.



Rice

A nearly ubiquitous carbohydrate, rice is consumed around the world: The grain is grown in more than 100 countries and provides half of the calories for 520 million people living in Asia. But the United Nations warns that a drought combined with rising ocean levels that increase the salinity of groundwater, as well as higher growing temperatures, could by the year 2100 reduce rice yields in parts of Southeast Asia by half. Similar effects of climate change could threaten other foundational foods, such as corn, wheat, and beans.

What you can do: To support other types of crops, you can strive to diversify your foundational carbs: Include brown or black rice, farro, quinoa, and various legumes in your meals. (For more on grain options, see ELmag.com/ancientgrains.)

Avocados

A thirsty fruit, each avocado needs some 47 gallons of water over a 14- to 18-month growing period. A mature tree in California can produce about 180 avocados annually, but growers must find water while contending with droughts and warming temperatures.

By 2060, crop yields could drop by 40 percent because of climate change, and in the coming decades, growing avocados in California may no longer be possible. Almonds, other nuts, and olives — which also require copious irrigation — might be similarly affected.

What you can do: While there's no ideal substitute for avocados and nuts, buying organic will at least help reduce the need for agrochemicals; mining the phosphate and manufacturing pesticides and herbicides contributes to greenhouse-gas emissions.

You can also consider snacking on alternatives, such as sunflower seeds, pepitas, and other seeds.

Coffee

More than 2 billion cups of coffee — one of the world's favorite beverages — are consumed daily. But coffee plants have been threatened by coffee-leaf rust fungus and the berry borer bug as higher temperatures, more intense rain, and persistent humidity have led to infestations.

Researchers estimate that 50 percent of the land suitable for growing coffee could be lost by 2050 because of warming temperatures and shifting rain patterns, which also affect vital plant pollinators: bees. And nearly 60 percent of coffee species face extinction, according to a 2019 study.

In Costa Rica, for instance, coffee is grown on mountains, explains Michael Hoffmann, PhD, Cornell University professor emeritus and coauthor of *Our Changing Menu: Climate Change and the Foods We Love and Need*, and as temperatures rise, new plants are cultivated at higher elevations. But, he warns, "sooner or later you run out of mountainside."

What you can do: Seek shade-grown coffee. Many plantations cut down canopy trees for more growing space, but traditional shade-grown methods reduce deforestation and support pollinators. Also look for organic beans, which supports better land stewardship. And there's always tea, although the climate crisis is affecting tea plantations, too.

What you eat can help fight climate change and help save endangered foods, our experts say. They outline four key strategies for climate-friendly eating:

- Eat a more diverse diet.
- Select local and seasonal foods.
- Eat less meat.
- Waste less food.

"If you are lucky enough to have choices in what you can eat, then you have an opportunity — and I would say a responsibility — to choose well," explains Sethi. "Farmers can't grow what we won't eat. By choosing foods that are biodiverse, we not only build a market for more sustainable crops but help forge a food web that can better respond to climate shocks. One that is, arguably, more nutritious and delicious." (For more on climate-friendly eating, see ELmag.com/ecoeating.)

"We can all do something," notes Hoffmann. "Start your day, pause, look around, and ask, What can I do differently today? Take the bus? Turn off the lights? Help others become aware?

"What we need is a great awakening."

MICHAEL DREGNI is an *Experience Life* deputy editor.

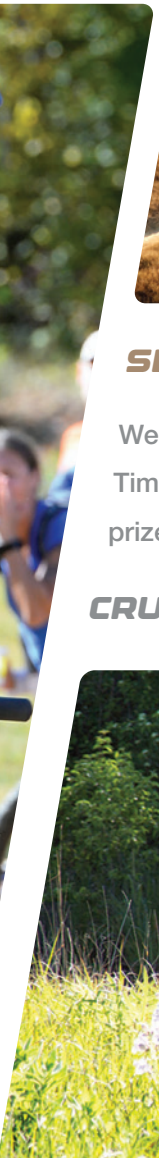
LEARN MORE

Discover other threatened foods, plus read Q&As with Michael Hoffmann, PhD, and Simran Sethi, at **ELmag.com/endangeredfoods.**

LIFE TIME®

GRAND PRIX

SIX ICONIC OFF-ROAD EVENTS
60 OF THE NATION'S BEST CYCLISTS
A $250,000 PRIZE PURSE



SEA OTTER CLASSIC UNBOUND GRAVEL CHEQUAMEGON MTB FESTIVAL

Welcome to the newest off-road cycling series produced by the nation's premier healthy lifestyle brand, Life Time. Watch as the best cyclists in the country compete across six iconic races on varying terrain for a $250,000 prize purse, split evenly between men and women. Together, let's grow cycling fandom in the United States.

CRUSHER IN THE TUSHAR LEADVILLE TRAIL 100 MTB BIG SUGAR GRAVEL

LIFE TIME®

Follow Us: @lifetimegrandgrix

WHY CSA

Buying a share of a local farm's harvest offers more than fresh, seasonal produce: It supports your community.

BY **LAUREL KALLENBACH**

There's nothing like that first bite of a summer peach or the tang of fire-roasted chilies in autumn. If you enjoy fresh flavor and abundant produce but lack the space or time to grow your own, you might consider bringing those things to your table by investing in community-supported agriculture (CSA).

CSA is a collective venture between consumers and an area farmer. Early each year, before the growing season begins, a grower offers CSA "shares" (memberships or subscriptions) of their crops to the public. You typically pay an upfront sum, often between $400 and $600 for a 20-week season, though many farms offer a half-season subscription or other payment options.

In return, you receive a weekly basket or box of seasonal produce. Some farms offer "protein shares" of eggs, cheese, or meat for an additional cost. Many offer even more options, such as maple syrup or fresh flowers. And most will allow you to include a list of undesirables: If you're allergic to strawberries or you loathe green beans, your weekly box will not include them.

To find a CSA in your area, check LocalHarvest.org, a nationwide online database of farms, CSAs, and farmers' markets. The site offers tips for choosing a share, including questions to ask farmers before you sign up.

Want to join this food movement? Read on to learn how you and your community could reap the rewards.

1. SUPPORT YOUR FOOD COMMUNITY.

With the rise in droughts, floods, and other effects of climate change, farming is becoming more financially risky — but CSA subscribers provide a safety net.

"Small-scale farming is in jeopardy," says Jerusha Klemperer, director of FoodPrint, a website that helps people work toward a more sustainable, healthy food system. Klemperer explains that farmers often shoulder huge expenses, including farm-equipment repairs, mortgage payments, seedlings, and soil inputs that help crops grow — and typically, those expenses get recouped only postharvest.

"CSA dollars paid upfront go directly to farmers, who need money early in the growing season, long before they see harvest profits," she adds.

In more than 10 years of CSA membership, Klemperer has never been disappointed. "If one crop fails, the farmers usually give me double of another vegetable," she says.

CSA programs often have designated pickup sites at parks or in church or community-center parking lots. Members trade produce and receive recipes, which they may need for cooking or canning bumper crops of cucumbers or apricots.

When you invest in a local farm, you become part of something larger than yourself. Unlike most supermarkets, CSA is central to a close-knit food community.

"My customers are like family," says Donal Yasukochi, owner of Yasukochi Family Farms near San Diego. "Some have participated in our CSA and farmers' markets for 30 years. If someone can't afford their CSA box one week, I tell them, 'Pay us next time. We're doing fine.'"

That sense of community is a vital, if intangible, benefit of these programs, notes Angel Dobrow, a longtime account manager for LocalHarvest's software, CSAware. "Trust that local farmers have your interests at heart," she says. "They're growing for their community and for people they know and care about."

You may feel a sense of pride and abundance simply from being more involved in the local food community, says Thomas Swendson, founder and president of New Mexico Harvest, a year-round, multifarm CSA project that

includes 90 food producers throughout the state. "CSAs prove local food is exciting and interactive. We're creating a large, intricate food community that pushes local into the spotlight."

2. GET MORE FRESH PRODUCE.

Local farm workers often harvest CSA produce no more than one day before members pick up their boxes. The journey from field to grocery store, on the other hand, can take much longer. Vegetables and fruit may sit in a truck for days before they're unloaded and transferred to a storeroom, where they might sit for another day before arriving in the produce aisle.

Although these items are still safe and edible, shorter time between harvesting and eating a food means better nutritional benefits, says Klemperer. (For more on how the life cycle of your produce affects its flavor and nutrition, see ELmag.com/fruitsandveggies.)

CSA shares also provide dietary diversity, which is important for delivering the full spectrum of vitamins, minerals, and phytonutrients a body needs for good health. And you're likely to encounter foods in your box that you've never tried before. Not sure what to do with that kohlrabi? Don't panic: Farmers routinely provide recipes with the weekly shares, so you'll get some tips for prepping unfamiliar items.

"Getting a parsnip in your bag might push your comfort zone, but if you try it, you'll probably like it," says Swendson. "You might even discover a new favorite flavor."

3. GROW YOUR LOCAL ECONOMY.

In the midst of economic downturns, supply shortages, and global shipping delays, it's critical to protect local economies. CSA memberships can help do just that.

"If you can purchase food locally, you absolutely should," says Dobrow. "By supporting small, entrepreneurial farmers, your dollars stay local."

She believes CSA programs act as a stabilizing economic force in communities. They're the antithesis of industrial food operations ("factory"

farms), which produce cheap, low-quality food while often ignoring the welfare of their workers and animals. (For more on the human and environmental costs of large-scale industrial agriculture, see ELmag.com/feedlots.)

Industrial crop production also creates imbalanced markets that damage small, rural businesses, according to FoodPrint. This has led to widespread economic decline in rural areas, because these large-scale models typically extract more than they return to the community. Instead, CSA and farmers' markets are a sign that a town or city is thriving.

4. SHRINK YOUR ENVIRONMENTAL FOOTPRINT.

CSA programs get a green thumbs-up for minimizing plastic and packaging waste, pesticide use, and long-distance transportation. Instead of supermarket salad greens encased in plastic boxes, you'll receive veggies and fruits in cardboard boxes, paper bags, and baskets that you'll return or reuse each week.

In addition, CSA farms are conscientious land stewards. "Statistically, small farms use fewer pesticides and chemical fertilizers than large, industrial-scale farms," says Klemperer.

Because your CSA items are sourced locally, it also means fewer fossil fuels are burned to transport them to your doorstep. But Klemperer cautions that calculating "food miles" isn't always as straightforward as we might think. For instance, local apples kept in electrically powered cold storage for nine months may require an amount of energy similar to that of newly harvested apples shipped to your grocery store from hundreds of miles away.

This speaks to another tenet of CSA programs: To everything, there is a season.

5. EAT ACCORDING TO THE SEASONS.

Shifting to a more seasonal diet allows you to appreciate foods that are naturally available only at certain times of the year. "Grocery stores have created a false Eden, where we can eat what we want, whenever we want," says Dobrow. "That's not sustainable. Humans were meant to eat foods in season and when they're ripe."

A CSA membership allows you to attune to seasonal cycles: how peaches and plums are juiciest in summer, how delicious apples and pears taste in autumn. "Save nonlocal or tropical foods for special treats," Dobrow suggests. "Grapefruit doesn't grow in northern Minnesota where I live, so I eat it only a few times a year."

At the grocery store, we often assume that we can get whatever produce we want, no matter the season. "The producers in our network educate members about the local and seasonal produce available in our state, which helps them understand why some staples aren't always available from a CSA," Swendson explains. "In New Mexico, onions and garlic are around most of the year, but popular avocados aren't grown here."

That's part of the learning curve. "There's a CSA mindset and lifestyle that go with a vegetable-heavy, seasonal diet: It involves cooking as much fresh food as you can," he adds. "When the CSA provides lots of produce at one time, the solution is to can or preserve it — so you can enjoy it in the off season." (For some beginner canning recipes, visit ELmag.com/canning.)

LAUREL KALLENBACH is a writer based in Boulder, Colo.

The Gift of Health

ALL YEAR LONG

Discover gift-subscription options:
ExperienceLife.com/LTMemberGift

Experience Life

1.

1. ADVENTUROUS EATING

An eat2explore subscription provides monthly cooking kits: recipes, spices, grocery lists, and educational materials about the history, culture, and food traditions of a variety of countries. From $21 per month at **www.eat2explore.com.**

2.

2. TRAINING PEELS

Peeling vegetables is a great task for petite chefs. Opinel's sturdy peeler uses a ring to help position small hands to make it easier. $18 at **www.opinel-usa.com.**

Kitchen Confidence

Welcome kiddos into the kitchen with these child-friendly tools.

3.

3. DRESS UP

Half the fun of working in the kitchen is fearlessly making a mess. These kid-size twill aprons from the Organic Company can handle whatever gets spilled on them. $28. **www.food52.com**

4. RIGHT-SIZED

These scaled-down baking sheets from Nordic Ware are the ideal size, shape, and weight for kids' use. $12 at **www.nordicware.com.**

4.

5.

5. CHOP CHOP

The blades on these serrated safety knives from Tovla Jr. are made from sturdy nylon; they produce a precise cut on vegetables but won't harm little fingers. The handles have a no-slip grip, too. $10 for three at **www.tovlajr.com.**

CALM ONLY NATURE CAN CREATE

Spending time in nature has the power to lower stress. So we packed the power of nature into one little gummy. Made with whole plant hemp extract and lemon balm, our gummies help you stay calm and focused in the face of everyday stress.

THE WORLD'S MOST TRUSTED HEMP EXTRACT™.

CHARLOTTE'S WEB™
STANLEY BROTHERS

CALM | SLEEP | RECOVERY | IMMUNITY | DAILY WELLNESS

Intentional Care

When we consciously show up for others — in our actions and words — we can create deeper, more meaningful connections.

BY **BAHRAM AKRADI**

Many people tell us they are drawn to Life Time because of the passion that pulses through our spaces. They feel it the moment they walk through our doors — this dynamic energy that motivates them to pursue their own goals.

Behind that energy, however, there's another, quieter force at work. And it's this simple four-letter word that's the greatest differentiator: *care*.

Much of who we are and what we do centers on how we care for one another. It's essential to human existence and how we build meaningful connections.

Think about the many things we care for and nurture. With our kids, we want to ensure their safety and meet their needs, so we care for them by encouraging them to learn and grow. To deepen relationships, we devote time to our friends and family, listening to one another and showing up each day and especially when it matters most.

To help our bodies stay strong and healthy, we prioritize moving and nourishing them in ways that feel good.

When we care about someone or something, we figure out how we *can*, rather than surrender to why we *can't*. We commit to finding a way. We iterate — and if we fall short or fail, we're willing to keep trying.

Of course, there's always the possibility that we can care a great deal and never succeed or make the impact we want. Yet not caring at all — just going through the motions — almost always results in failure.

Care can require great sacrifices of time, energy, and resources; other times it's the smallest of gestures — paying attention to detail, offering a few words of encouragement, or holding the door for a stranger.

When I think about someone who beautifully exemplifies care, I think of Shawn Severson, the general manager at Life Time in Edina, Minn. Shawn's care is evident from the moment you meet him. Every day, he greets members with a smile on his face. He knows their names, asks how they are, and really listens to their responses.

Shawn also cares for the space, and he's often seen wearing a portable vacuum on his back, doing his part to keep the club clean. His role is about leading, and that means *doing the work* right alongside his team. So much of his time, focus, and energy consistently goes into that club and the people inside it.

The key word here is "consistently." Shawn makes genuine care a daily priority. He doesn't limit his interest or appreciation to a few people or give it only when it's convenient. He consistently connects with members and team members, demonstrating his care for and support of everyone.

Shawn knows what matters to him, and it's obvious when you meet him.

That's not always clear for many of us, whether at work, at home, or in our communities. With all the distractions and temptations we encounter in our lives, we can lose sight of our priorities and what — and who — we care about.

That's why it's important to check in with ourselves and make sure we're crystal clear on what's important. To figure that out, ask yourself: *What do I want to create, support, protect, or change for the benefit of the world around me? Where do I feel driven to invest my time, focus, and personal energy?*

For me, the same answers always come up. I want to support what I feel passionate about: people's health and well-being and the future of our planet. Every day, I work to care for these things in a variety of ways, some big, some small.

The answers will be different for each of us — and they can change over time. If you're an artist, the answer might be about creating something meaningful or beautiful. For healers, it could be about improving and sustaining well-being.

For entrepreneurs and inventors, it may be bringing something new and useful into reality. For justice seekers, it might be about redressing wrongs or defending the defenseless.

Caring requires vulnerability and courage, which allow us to show up, take risks, and keep going. When we care, we're "daring greatly," as Theodore Roosevelt said. We're showing up for something greater than ourselves.

Caring is one of the greatest gifts we can give one another; it gives life deep significance. It's through care that we find understanding, connection, and belonging. And it flourishes when we learn to accept it, respond, and return it as a pure act of kindness — without expectation.

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

We don't need to shop like chefs or cook like chefs; we need to shop and cook like people who are learning to cook, like what we are — people who are hungry.

— TAMAR ADLER

RxSugar®

Available Every Day on the
Life Time® Health Store!
https://shop.lifetime.life

The World's Best-Tasting, Keto Certified, Non-GMO Project Verified, Plant-Based, USDA Organic, Zero-Sugar Syrups

Ideal for Baking, Cooking, Coffee, Yogurt & Smoothies

Delicious • No Preservatives • No Junk

Blood-Sugar Friendly • Suitable for People With Diabetes

Discover Delicious Recipes at RxSugar.com

BE RxTRAORDINARY AND FOLLOW US! Tag us @RXSUGAR #SUGARREIMAGINED

GOOD EATS & GREAT BEATS

No matter what's on the menu, music is the perfect side to accompany any meal. Enjoy Pandora while you're cooking and eating!

*START YOUR PANDORA PREMIUM TRIAL

pandora PREMIUM™

*U.S. residents, 18+ only. One time use only; trial pass void after activation or expiration. Subscription automatically renews after trial unless canceled at least 24 hours in advance. This offer cannot be combined and may not be available to current Pandora subscribers or those who previously redeemed an offer. Offer expires on 12/31/22. Terms of Use apply. See www.pandora.com/legal.

Download on the App Store

GET IT ON Google Play