

WEBMD.COM

NOV/DEC  
2019

# WebMD®

**+**  
TURNING  
**SOUND WAVES**  
INTO **TREATMENT**  
**PG 39**

**YOU CAN  
RUN A 5K**  
*(YES, YOU!)*  
**PG 16**

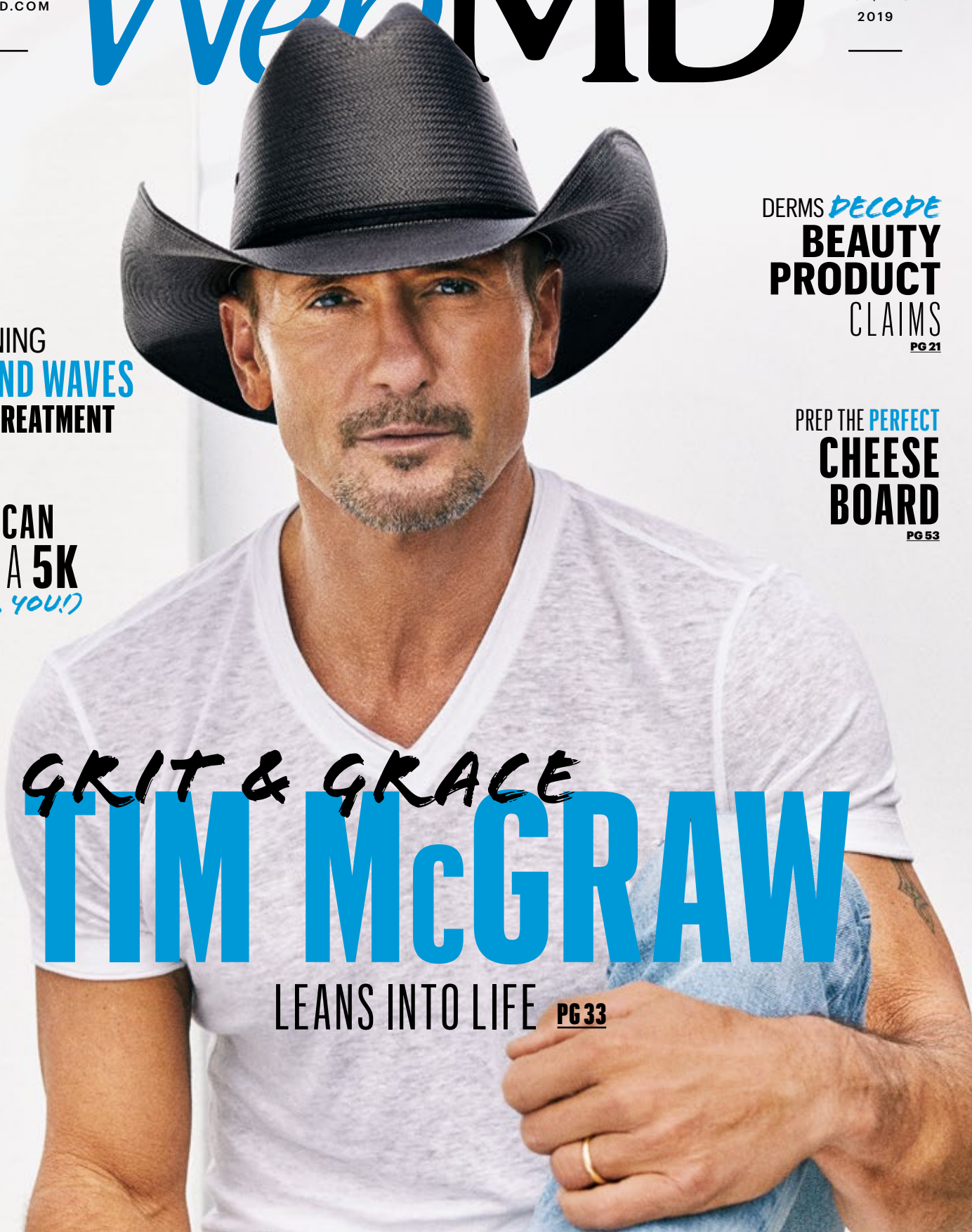
DERMS **DECODE**  
**BEAUTY  
PRODUCT  
CLAIMS**  
**PG 21**

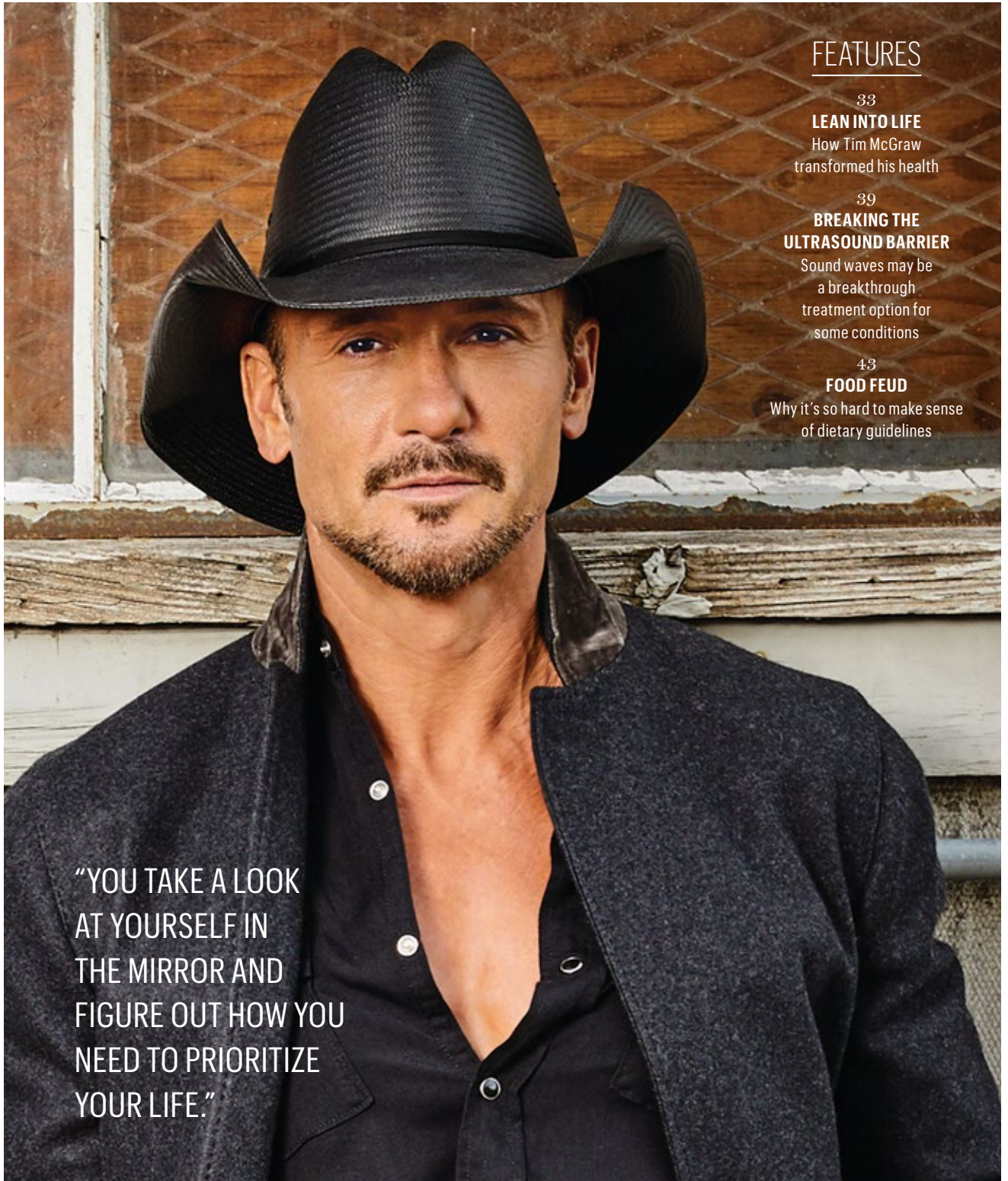
PREP THE **PERFECT**  
**CHEESE  
BOARD**  
**PG 53**

**GRIT & GRACE**

# TIM MCGRAW

LEANS INTO LIFE **PG 33**





## FEATURES

33

### LEAN INTO LIFE

How Tim McGraw transformed his health

39

### BREAKING THE ULTRASOUND BARRIER

Sound waves may be a breakthrough treatment option for some conditions

43

### FOOD FEUD

Why it's so hard to make sense of dietary guidelines

"YOU TAKE A LOOK AT YOURSELF IN THE MIRROR AND FIGURE OUT HOW YOU NEED TO PRIORITIZE YOUR LIFE."



## THE GIVING ISSUE

- 6 GRATITUDE**  
Facts and stats on giving back
- 19 EXPERT PICKS**  
Skin care gift sets for everyone on your list
- 25 CONNECTING**  
The case for giving experiences rather than toys
- 28 KIDS' HEALTH**  
How teaching kids to give their money away fosters financial literacy
- 56 MOVING FORWARD**  
A veteran advocate for caregivers talks about wins—and where we need to go



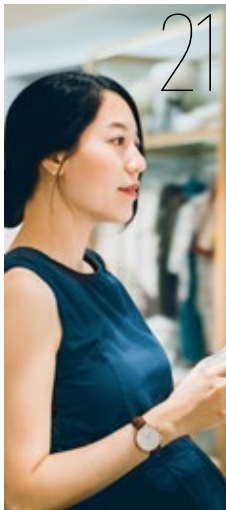
16

## LIVING

- 12 WELL-BEING**  
The benefits of having more in-depth conversations
- 13 WOMEN'S HEALTH**  
Periods after 40—what to expect
- 14 MEN'S HEALTH**  
Intimacy after prostate cancer
- 15 WORK WISE**  
Steer clear of germs at the office
- 16 FITNESS**  
How you can run a 5K in just two months
- 17 MIND MATTERS**  
The etiquette of expressing condolences online



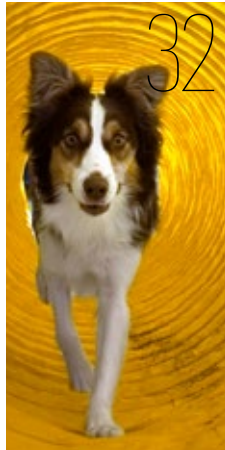
18



21

## BEAUTY

- 18 SKIN CARE**  
The scoop on hyaluronic acid
- 21 BEAUTY SMARTS**  
Busting beauty marketing claims
- 24 DERM Q&A**  
Your tattoo removal questions answered



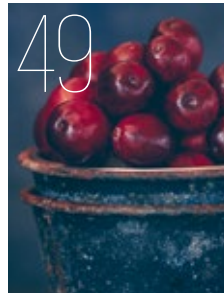
32



26

## FAMILY

- 26 BABY**  
How and what to feed infants and toddlers
- 27 PREGNANCY**  
How too much weight going into pregnancy can raise your risk for complications
- 29 PARENTING**  
Managing ADHD
- 30 TEEN HEALTH**  
Tips for surviving the SAT
- 32 PETS**  
All about agility training



49



52

## FOOD

- 49 GOOD FOR YOU**  
The power of fresh cranberries
- 50 3 WAYS**  
Festive salmon dishes
- 52 BUILD A BETTER**  
Tips for making turkey the star of your holiday dinner
- 53 FOOD 101**  
Cheese board pairings for every occasion



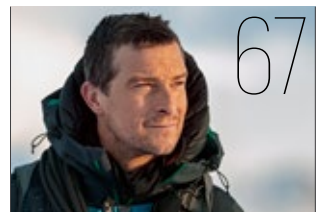
**ON THE COVER**  
PHOTOGRAPHY PROVIDED BY TIM MCGRAW



55

## CHECKUP

- 55 THE LATEST**  
Breakthroughs in COPD research
- 58 SPOTLIGHT**  
The link between type 2 diabetes and heart disease
- 60 INSIGHT**  
How personalized medicine can improve your care
- 61 SPOTLIGHT**  
Living-donor liver transplant myths
- 62 HEALTH HIGHLIGHTS**  
Tips to prevent and relieve sinusitis
- 63 SPOTLIGHT**  
Living with RA
- 65 SPOTLIGHT**  
How older patients can have better doctor visits
- 66 SPOTLIGHT**  
Get your finances ready for future health care needs



67

## IN EVERY ISSUE

- 4 EDITOR'S NOTE**
- 6 UPFRONT**  
News and research on sugary beverages, cancer innovations, and more
- 67 TAKE 10**  
Bear Grylls talks about why he won't slow down



**W**e certainly don't need to wait until the holidays to contribute to those in need, but this time of year is a good reminder. Whether it's Giving Tuesday or serving a holiday meal at a homeless shelter, the opportunities abound. And, not only does it feel good, studies show that it's good for us. People who volunteer regularly have healthier hearts, less ongoing pain, and bolstered immune systems. They also battle addiction better and are less likely to develop dementia with age. It's the gift that keeps on giving. Need some ideas to get started? We asked our staff how they give back during the holidays.

**Kristy Hammam**  
Editor in Chief  
kristy@webmd.com

## FROM THE WEBMD TEAM

# How do you give back during the holidays?

During the holidays, my husband and I really want to show our young children what it means to "give back" by donating essential items to families in need. Instead of expecting gifts, our kids write up a list of items (like winter coats and warm pajamas) that we then donate. We hope this teaches our children about gratitude.

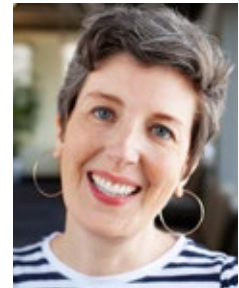


**NEHA PATHAK, MD**  
WebMD Medical Editor

"Go big" with holiday giving? Nope. I'm trying to focus on the little things. Sending a card (not a text) to a long-lost friend or elderly neighbor. Calling a distant relative (again, not a text). Finding that little thing that you can do—it'll mean everything.



**PAUL KERCHER**  
WebMD Senior  
Manager, Content  
Strategy



**AMY MCGURK**  
WebMD Manager,  
Photos/Graphics

My daughter once passed up presents and asked for cash to donate to a local dog adoption group, and we had dogs named after our family members! Now that my kids are older, we make a family cash donation to a children's charity that we pick together, including one that throws birthday parties for kids that may not be able to afford one. Celebration is important, especially at this time of year!



**EDITOR IN CHIEF**  
Kristy Hammam

**EDITORIAL DIRECTOR**  
Colleen Paretty

**VICE PRESIDENT,  
EDITORIAL DEVELOPMENT**  
Stephanie Snipes

**ART DIRECTOR**  
Amy McGurk

**VICE PRESIDENT, PUBLISHER**  
Vanessa Cognard

**SALES OPERATIONS ANALYST**  
LaTeisha Clay

**CHIEF MEDICAL EDITOR**  
Michael W. Smith, MD

**SENIOR MEDICAL EDITORS**  
Hansa Bhargava, MD  
Arefa Cassoobhoy, MD, MPH  
Brunilda Nazario, MD

**MEDICAL EDITOR**  
Neha Pathak, MD

**CONTRIBUTING WRITERS**  
Christina Boufis  
Sonya Collins  
Jodi Helmer  
Katherine Kam  
Lauren Paige Kennedy  
Lisa Marshall  
Matt McMillen  
Colleen Oakley  
Erin O'Donnell  
Kara Mayer Robinson  
Gina Shaw  
Stephanie Watson

**ADVERTISING SALES**  
NEW YORK

**CLAUDIA FERN**  
cfern@webmd.net  
212-624-3728

**PATRIA RODRIGUEZ**  
prodriguez@webmd.net  
212-417-9542

CHICAGO

**TRACY KENNEDY**  
tkennedy@webmd.net  
312-758-6919

**ANNA NOVINGER**  
anovinger@webmd.net  
312-523-3171

WEST COAST

**NICOLE JONES**  
njones@webmd.net  
213-718-5550

## CORPORATE

**CHIEF EXECUTIVE OFFICER**  
Robert N. Brisco

**CHIEF FINANCIAL OFFICER**  
Blake DeSimone

**VICE PRESIDENT, FINANCE**  
James McCann

**CHIEF MEDICAL OFFICER**  
John Whyte, MD, MPH

**SVP, CORPORATE  
DEVELOPMENT AND GLOBAL  
STRATEGY**  
Jeremy Schneider

**DIRECTOR, POLICY &  
GOVERNANCE**  
Theresa Saladino

## mxm

PART OF  
**Accenture Interactive**

155 AVENUE OF THE AMERICAS  
NEW YORK, NY 10013

**PRESIDENT**  
Georgine Anton

**CHIEF CLIENT OFFICER**  
Tom Sebok

**CHIEF CREATIVE OFFICER**  
Roald van Wyk

## ACCOUNT MANAGEMENT

**ACCOUNT DIRECTOR**  
Eric Meisner

**ACCOUNT SUPERVISOR**  
Wenona Williams-Fassinou

**PROJECT MANAGER**  
Kellie Kramer

**SENIOR MARKETING  
SERVICE MANAGER**  
Annie Gormley

**ACCOUNT EXECUTIVE**  
Oscar Buitrago

## EDITORIAL

**EDITOR**  
Michelle Rubin

**ASSISTANT EDITOR**  
Rachel Vipond

**FOOD EDITOR**  
Elizabeth Elliott

**COPY CHIEF**  
Grant Fairchild

**BOOKINGS DIRECTOR**  
Susan Pocharski  
spocharski@gmail.com  
617-869-1713

## CREATIVE

**GROUP DESIGN DIRECTOR**  
Missy Bergwall

**SENIOR ART DIRECTOR**  
Dara Neubauer

**ASSISTANT ART DIRECTORS**  
Amber Hanson  
Jessica M. Johnson  
Brittany Long

## PRODUCTION

**DIRECTOR**  
Sigrid Anderson

# CUSTOMER SERVICE & SUBSCRIPTIONS

## MANAGE YOUR SUBSCRIPTION

**EMAIL** [webmd@emailcustomerservice.com](mailto:webmd@emailcustomerservice.com)

**CALL** 888-798-0088

**CLICK** "Contact Us" at the bottom of every page on WebMD.com.

GRATITUDE

## Giving Thanks

THE HOLIDAYS ARE A GOOD TIME TO REEXAMINE WHAT MEANS THE MOST TO YOU AND TO FIND WAYS TO GIVE BACK TO OTHERS



ABOUT **78** MILLION  
Number of Americans who volunteered through an organization in 2017.

**6.9** BILLION  
Number of hours Americans donated to charity in 2017.

**51%** Percentage of Americans who do favors for their neighbors.

**\$410** BILLION  
Amount Americans donated to charity in 2018.



**COLLEEN PARETTY**  
 Editorial Director,  
 colleen@webmd.com

IN THE NEWS

# Wave Power

New applications for old techniques are always exciting in medicine. Take ultrasound—familiar to most of us as blurry snapshots of a growing fetus in a woman’s womb. But now doctors are trying out sound waves to treat certain conditions, not just take pictures of them. In **“Breaking the Ultrasound Barrier” (page 39)**, we follow an Alzheimer’s patient whose doctors used sound waves to open his blood-brain barrier. The hope is that ultimately this barrier could be opened to allow drugs through to help treat the disease. The potential has plenty of medical professionals pretty excited. As one of our experts puts it, “because focused ultrasound has such a powerful combination of features—it’s an entirely unique and minimally invasive tool that can trigger a variety of responses in the body—it has tremendous potential for treating a host of medical problems.” Stay tuned for how ultrasound may one day help treat Parkinson’s disease, arthritis, cancer, and more. — *Colleen*



## LONGEVITY LINK

Women who are able to have children after 40 are four times more likely to live to 100 than women who can no longer bear children at that age.

SOURCE: Menopause

## DON'T DRINK YOUR SUGAR

That soda at lunch or OJ at breakfast could take a serious toll on your health. Researchers tracked 13,440 adults over age 45 for six years. Those who drank more sugary beverages were more likely to die for any reason during the study than those who drank less.

In fact, for each additional 12-oz sugar-sweetened, non-juice beverage that people drank per day, their risk of death went up by 10%. Fruit juice, which packs a lot of sugar, was even worse. Each 12-oz serving came with 24%-greater odds of death.

SOURCE: JAMA

## POT AND PREGNANCY

The number of women who use marijuana while pregnant has more than doubled in the last 15 years. In 2002, just under 3.5% used it. Today, it’s 7%. Any kind of marijuana use during pregnancy—smoking, vaping, eating, drinking, or using creams on the surface of skin—can harm a baby’s development.

SOURCE: JAMA

## 1 IN 7

Number of people with HIV who don’t know they have it. Six in 10 U.S. adults have never had a test.

SOURCE: CDC



GETTY IMAGES; PHOTOGRAPHY: SHARON SUH; STYLING: MINDY SAAD



## NEW RISK FACTORS

Doctors might have new criteria to measure a woman's risk of breaking a bone. A study of 1,568 postmenopausal women found that those with the highest postural sway—the degree to which the body tilts forward, back, left, or right when standing still and upright—had two times higher risk of fracture than women with the least sway. Fracture risk is based on genetics, medications, lifestyle, and overall health, among other factors. When you understand your risk of a break, you can take the right steps to prevent it.

SOURCE: *Journal of Bone and Mineral Research*



## RELAX AND RETAIN

Did you ever leave the doctor's office and realize you couldn't remember much of what the doctor told you? It could be nerves. When you feel anxious or afraid about what you're hearing, you might not listen as carefully. Think of it as the emotional equivalent of sticking your fingers in your ears. Trying to relax before your appointment could help. New research shows that people who do a brief meditation or relaxation-focused breathing exercises before seeing the doctor retain more information afterward.

SOURCE: *Personality and Social Psychology Bulletin*

## KEEP THEM OUT OF REACH

Every two hours, a child under age five visits the ER for an injury related to beauty or personal-care products, usually after swallowing the product.

SOURCE: *Clinical Pediatrics*

## 7 IN 10

Number of Americans that died of rabies who got it from bats.

SOURCE: CDC

GETTY IMAGES

## DAD SHAMING

Half of dads face criticism of their parenting choices. While two in five respond by seeking information or advice about the issue, one in five dads say the judgement makes them want to be less involved.

SOURCE: C.S. Mott Children's Hospital

## 3 IN 4

Number of Americans who are concerned about physician burnout and how it could affect their care.

SOURCE: American Society of Health-System Pharmacists

## WE (SOMETIMES) ID

Think it's hard for teens to get cigarettes? When student researchers tried to buy cigarettes at 103 different stores, only 40% asked for ID. Tobacco shops, convenience stores, and retailers that displayed lots of tobacco ads were least likely to card.

SOURCE: *American Journal of Public Health*



## RED MEAT RISKS

Higher red-meat intake could mean greater risk of premature death. Researchers tracked the red-meat consumption of 81,469 adults for eight years. Those who added red meat to their diet during that time had a higher risk of death over the following eight years than those who kept their diets the same. An increase of a half-serving per day amounted to a 10% increased risk of death by any cause.

SOURCE: *BMJ*

## LEFT BEHIND?

Healthy behaviors are declining among healthy-weight kids. A recent study compared the lifestyles of healthy-weight, overweight, and obese children in 1999 to similar children in 2010. Over that time, the number of healthy-weight kids who ate breakfast, had dinner as a family, exercised regularly, and slept enough plummeted. Meanwhile, hours spent looking at screens rose. Overweight kids did better in all these areas. The study suggests that while parents, doctors, and schools focus on improving the health of overweight kids, they might be neglecting the health of others. Every kid needs a healthy routine.

SOURCE: *Childhood Obesity*



## 1 IN 4

Number of adults who meet recommended exercise guidelines—30 minutes of moderate aerobic activity five days a week. That's up from less than one in five a decade ago.

SOURCE: CDC

GETTY IMAGES

## BREAST MILK & EARLY BIRTHS

Babies born early are less likely to receive breast milk than babies born at full term.

Breast milk is the best source of nutrition for babies of all gestational ages.

SOURCE: CDC



## PERFORMANCE-ENHANCING BACTERIA

The bacteria that lives in your gut might play a role in physical performance. New research shows that elite athletes—think marathoners and Olympians—have high levels of veillonella in their intestines. These bacteria seem to help break down lactate. That’s the acid that builds up in your muscles when you work them hard and makes you “feel the burn.” When researchers transferred these bacteria into the bellies of mice, it acted like a performance-enhancing drug. Ongoing studies will determine whether veillonella could form the basis of a performance-enhancing probiotic supplement for people.

GETTY IMAGES

SOURCE: *Nature Medicine*



## SMOKING RISK IN WOMEN

All smokers face an increased risk of a major heart attack. But this consequence seems to hit women hardest, new research shows. Female smokers ages 18 to 49 are 13 times more likely to have a major heart attack than non-smoking women their age. Male smokers at that age are just over eight times more likely to have a heart attack than their non-smoking male peers. Female smokers ages 50 to 64 have more than double the heart-attack risk of male smokers their age.

SOURCE: *Journal of the American College of Cardiology*

## NO NEED FOR PHYSICALS?

Think an annual physical is a waste of time? Maybe it is. That's the conclusion of a review of 17 clinical trials. Unless you're due for a routine screening, such as a mammogram or a colonoscopy, general checkups when you're in good health are unlikely to be beneficial.

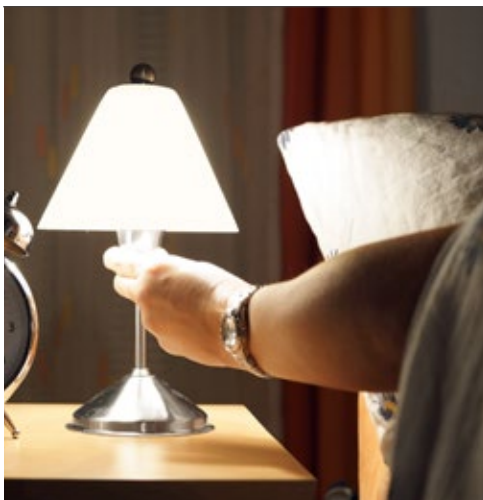
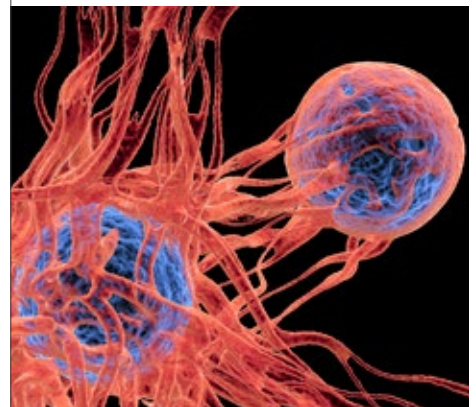
SOURCE: *Cochrane Database of Systematic Reviews*

## CANCER-DETECTION INNOVATIONS

A laser may one day detect cancer cells (like those in the image below) circulating in the bloodstream of people with melanoma.

This cancer most often arises on the surface of the skin. Cancer cells then show up in the bloodstream before the disease spreads—or metastasizes—to other parts of the body. Researchers have developed a laser that can detect these cells without drawing blood. When they tested the device on 28 people, it accurately found the circulating cells in 27 of them. The laser works in 10 seconds and is 1,000 times more sensitive than any existing test.

SOURCE: *Science Translational Medicine*



GETTY IMAGES

## LIGHTS OUT

Do you sleep with a light on? Does the TV screen illuminate your bedroom throughout the night? These artificial lights might be hurting your sleep and—as a result—your waistline. Among 43,722 women ages 35 to 74, those who slept with a light or television on in their room were more likely to be overweight or obese. They were also more likely to gain weight during the six to 12 years that researchers tracked them. On average, the women that slept in the light rather than the dark gained 11 pounds during the study.

SOURCE: *JAMA*

## A TROUBLING TREND

One in five post-partum deaths in California is from a drug overdose or suicide. Researchers suggest this may point to a nationwide trend.

SOURCE: *Journal of Obstetrics and Gynecology*



WELL-BEING

## Skip the Small Talk

AT YOUR NEXT HOLIDAY GATHERING, OPT FOR MORE MEANINGFUL DISCUSSIONS. RECENT STUDIES SUGGEST DEEPER, MORE SUBSTANTIVE CONVERSATIONS MAKE YOU HAPPIER.

**WITH YOUR HOLIDAY CALENDAR BURSTING AT THE SEAMS WITH SOCIAL GATHERINGS, NOW'S YOUR CHANCE TO BOOST YOUR HAPPINESS QUOTIENT.** Research suggests being with others can give you a better sense of well-being than too much time alone. But lots of small talk may not do the trick. In a recent study, people who had deeper conversations were happier and more satisfied with life than people who focused on small talk. When you spot your boss' assistant or your favorite family member at the buffet table, swap superficial comments about the weather for deep conversation starters like how they feel about something in the news or their future aspirations. —KARA MAYER ROBINSON



Search for the article [Simple Health Steps for Women in Their 40s and 50s](#) at [WebMD.com](#).

**BEFORE YOUR PERIODS STOP COMPLETELY**, your body makes the transition to menopause in a phase called perimenopause, which could last two to 10 years. During this time, when hormone levels fluctuate and eventually drop, all kinds of changes in your cycle are fair game.

#### WHAT YOU CAN EXPECT

In your 40s—and maybe even in your late 30s—yo-yoing estrogen and progesterone can make periods unpredictable. They could come more frequently. Or they might happen less often. The flow might be very heavy or—more preferably—very light. Sometimes, you’ll skip one or a few altogether. (But, to be clear, it’s not menopause until you go 12 straight months without a period.) Other period symptoms, like cramps and irritability, could become more intense. Or, you may not get the telltale pain and moodiness that indicate your period is on the way.

“Because it’s unpredictable, it can be very difficult for women because they don’t know exactly when it’s coming,” says JoAnn Pinkerton, MD, director of the Division of Midlife Health at the University of Virginia Health System in Charlottesville.

#### WHAT YOU CAN DO

A healthy lifestyle can help ease the transition into menopause. “Women who are able to maintain a regular exercise routine, eat healthy, and manage their stress—because stress can make perimenopausal symptoms worse—may find that the perimenopausal transition is a bit easier for them,” says Pinkerton.

Medical treatment could also ease your symptoms. Birth control pills or a long-acting intrauterine device can help relieve heavy bleeding and intense cramps and, sometimes, eliminate periods completely. A surgical procedure called endometrial ablation, which destroys the lining of the uterus, reduces or stops bleeding.

If heavy bleeding, cramps, or menstrual irregularity hurt your quality of life, talk to your doctor.

# WOMEN'S HEALTH

## What to Expect From Periods After 40

YOUR PERIODS MAY HAVE COME LIKE CLOCKWORK FOR NEARLY THE LAST THREE DECADES. BUT, AROUND YOUR 40s, THE NEW NORMAL COULD BE THAT THERE IS NO NORMAL.

BY Sonya Collins

REVIEWED BY Brunilda Nazario, MD, WebMD Senior Medical Editor

### ASK YOUR DOCTOR

MENSTRUAL IRREGULARITY IN YOUR 40s SHOULDN'T RAISE THE SAME CONCERNS IT WOULD IN YOUR 20s OR 30s. STILL, TALK TO YOUR DOCTOR IF ANY OF THESE ARE TRUE.

- Changes in your period make it hard for you to live your life
- You go through a tampon or pad every hour or two for more than two hours

- Bleeding lasts more than seven days
- Bleeding happens between periods or after intercourse
- Your periods consistently come less than 21 days apart

# Sex After Prostate Cancer

PROSTATE CANCER TREATMENT CAN SAVE YOUR LIFE, BUT IT WILL ALSO AFFECT YOUR SEX LIFE, AT LEAST TEMPORARILY. THAT DOESN'T MEAN YOU AND YOUR PARTNER MUST PUT INTIMACY ON HOLD.

BY Matt McMillen **REVIEWED BY** Michael W. Smith, MD, WebMD Chief Medical Editor

**BOTH SURGERY AND RADIATION FOR PROSTATE CANCER CAN CAUSE ERECTILE DYSFUNCTION,** impact your ability to have an orgasm and ejaculate, and diminish your sex drive. Fortunately, those problems often go away, but don't expect that to happen overnight. Most men who had no trouble with sex before treatment will see significant improvements within a year of treatment, provided that treatment did not damage the nerves that help make erections possible.

During the recovery period, sexual problems impact everyone differently, but Claire Postl, MA, LPCC, sees many common reactions among men. Their self-esteem often drops, and they feel less masculine. Both can lead to depression and anxiety. "Men grieve the loss of sexual function," says Postl, a sex therapist at The Ohio State University Wexner Medical Center's Department of Urology, Men's Sexual Health, and Fertility Program.

That's a normal reaction. But, unfortunately, another common reaction finds the man going it alone. "Men often believe they have to fix things themselves," says Postl. "That's a very lonely feeling."

So get some help. Postl recommends that you and your partner discuss the sexual side effects

of treatment with your doctor well before your procedure. You both should know what to expect and learn how to prepare. Part of that prep will involve re-thinking sex and intimacy—and talking about it with each other. "Ask yourselves, 'What can we do as a couple so that it does not impact our relationship so dramatically?'" says Postl.

First, understand that at least in the short term, sex may not be spontaneous, as you may need medications or other means to achieve and maintain an erection. That will require you to plan ahead.

Second, be aware that you will be able to have an orgasm, but you may not ejaculate. That can be difficult for both of you. For you, it may be an important symbol of virility that you've lost, while your partner may have seen it as evidence of your pleasure. But don't worry—your orgasm will feel just as intense, and you can tell your partner that.

"Try actively communicating rather than relying on body language," says Postl. "Talk about what feels good and focus less on how things used to be. Sex can be just as passionate and exciting and really connect you and your partner. Challenge what you think sex should look like."

## ASK YOUR DOCTOR

### Q What options are available to help with erections?

Medications like Cialis, Levitra, and Viagra are effective for most men; others may benefit from injectable drugs. Several devices, like penile implants and pumps, also are available.

### Q Are there other sex-related problems I can expect?

Urinary incontinence often occurs, and it usually lasts about six months. This can be embarrassing and affect your desire for sex, but physical therapy can help.

### Q What resources can prepare me and my partner?

Seek out a sex therapist, but if none practice in your area, try a couples counselor, who can help guide communication between you and your partner during stressful times.

### Q What can I do to improve my ability to get an erection?

Avoid alcohol and smoking, maintain a healthy weight, exercise regularly, and review with your doctor any medications you take or health conditions you have that could impact your sex life.



# Beware of Bacteria

FROM THE KEYBOARD TO THE COMMUNAL KITCHEN, GERMS ARE EVERYWHERE AT WORK

BY Jodi Helmer REVIEWED BY Hansa Bhargava, MD, WebMD Senior Medical Editor



Search for the quiz  
**How Much Do You Know  
About Spreading Germs?**  
at [WebMD.com](http://WebMD.com).



**YOU COLLECT MORE THAN A PAYCHECK AT WORK:** Every time you touch your desk, keyboard, or telephone, you pick up germs. More than 10 million bacteria are on a typical office desk—400 times more bacteria than found on the average toilet seat—which means that typing an email or making a call puts you at risk for illnesses.

The reason is pretty simple. “We touch a lot of different surfaces that hundreds of others might be touching,” says Kelly Reynolds MSPH, PhD, professor and environmental microbiologist at the University of Arizona. “Germs spread quickly.”

Even when professional cleaners do their best, germs linger. Bacteria counts are lowest at the beginning of the workday (because offices are often cleaned overnight), but it doesn’t take long for germs to show up for work, too.

“As the day ramps up and more people touch more surfaces, the risk of coming in contact with bacteria goes up. Contamination levels reach their peak around lunch,” Reynolds says.

In one study, researchers asked volunteers to be artificially inoculated with a benign virus to test how fast it would spread. They found that “infected” coworkers spread the virus to 50% of workplace surfaces within four hours of arriving at work; thanks to shared contact with those

surfaces, half of their coworkers also tested positive for the viruses.

To keep germs in check and avoid illness, clean your workspace. Wipe down your desktop, monitor, keyboard, computer mouse, and phone at least once a day—but skip soap and water and opt for something stronger.

“Bacteria and viruses survive really well on surfaces,” Reynolds says. “Soap and water aren’t enough to kill them; you need to use a product with a disinfectant.”

Other top spots for germs include doorknobs, elevator buttons, vending machine buttons, coffee pots, microwaves, and refrigerators in the break room. It’s not practical to wipe down every surface you touch, but washing your hands and using hand sanitizer can help kill the bacteria you encounter during your workday.

Research published in the Archives of Environmental & Occupational Health found that handwashing killed bacteria, reducing the risk of infection with two common viruses up to 77% percent.

Reynolds advises washing your hands after you go to the bathroom and before you eat: “When it comes to avoiding germs, including the germs you encounter at work, the best public health intervention is still handwashing.”

## BY THE NUMBERS

\$260  
BILLION

Annual cost of missed work and lost productivity due to illness.

1 to 6

Number of workdays per year missed due to illness.

92%

Phones contaminated with bacteria such as staphylococci and E. coli.

UP TO  
100%

Reduction in bacteria after cleaning a keyboard with an antibacterial wipe.



FITNESS

# On the Run

TWO MONTHS FROM NOW, YOU CAN BE RUNNING A 5K. NO, REALLY, YOU CAN. TODAY'S COUCH-TO-5K PROGRAMS GET YOU OFF THE SOFA AND OVER THE FINISH LINE IN NO TIME.

**BY** Kara Mayer Robinson

**REVIEWED BY** Michael Smith, MD, CPT, WebMD Chief Medical Editor

**WITH AN ABUNDANCE OF COUCH-TO-5K PROGRAMS AT YOUR FINGERTIPS**, from smartphone apps to beginner groups, it's easier than ever to start running.

## **NOT ACTIVE NOW? NOT A PROBLEM.**

"A couch-to-5K program is an excellent way to ease yourself into an active lifestyle," says USA Track and Field-certified running coach Steve Carmichael, creator of RunBuzz.com. They're designed with beginners in mind to gradually build your endurance. You simply follow an eight- to 12-week plan with 30 to 45 minutes of walk/run intervals, three times a week. You start off super easy, walking most of the time. Then every week, you run a bit more and walk a bit less. And as you get better, you still get walking breaks. "There's never any shame in walking," says Carmichael. "Even experienced runners take walking breaks from time to time."

## **IN THE ZONE**

You'll be surprised how fast it works. "After a couple of weeks, you'll start to see noticeable improvement, and you'll keep seeing improvement as you go," says Carmichael. Your breathing will become more natural. Running will feel easier. You won't need to walk as often or as long.

If you're not very active now, plan to enter your first race two to three months after you start. If you're already active, it can work even faster—in as little as four to six weeks.

## **START HERE**

You can find a couch-to-5K program on your smartphone—try apps such as Active Network's Couch to 5K app or C25K 5K Trainer by Zen Labs—online, or on social media (search for Facebook groups).

If you're a beginner, consider joining a local running club's couch-to-5K program, which may offer individualized plans, one-to-one guidance, and peer support.



# Sympathy Posts

THOUGH MOURNING HAS MIGRATED TO SOCIAL MEDIA, THE SAME ETIQUETTE AS TRADITIONAL CONDOLENCES APPLIES

BY Katherine Kam REVIEWED BY Patricia A. Farrell, PhD, WebMD Medical Reviewer



Search for the article  
**What Is Normal Grieving, and What Are the Stages of Grief?**  
at WebMD.com.



**A GENERATION AGO, COMFORTING TRADITIONS SURROUNDED GRIEVING FAMILIES:** a sympathy card in the mailbox, a floral arrangement, a hot casserole delivered to the doorstep.

In recent years, though, much of people's grieving has migrated onto social media, with all of the benefits and pitfalls. Online, the rules of etiquette are murky, so public condolences can bring solace to the bereaved or shock them with rude questions and ill-considered comments.

And yet, much about mourning remains the same, says Jocelyn DeGroot, PhD, an associate professor of communication at Southern Illinois University Edwardsville. "Before social media, we grieved in the same way," she says. "Widows have always written to their deceased husbands. People have always celebrated birthdays after the person has died and the anniversaries of the death." Those rituals have continued on Facebook, Twitter, and other venues.

In many ways, social media has been a boon to those who have lost loved ones, according to DeGroot, by allowing them to notify a large group all at once, for example. "Sometimes, it's hard to have to repeat: 'So-and-so died, so-and-so died.' Just making that blanket announcement or statement means that you don't have to relive it every time," says DeGroot. Sharing about a death

on social media can bring family members an outpouring of support, she adds, even from people who usually aren't in touch.

But there are drawbacks, DeGroot says, such as "the nosy people, the rubbernecks. They're Facebook friends, but they're so far removed from being an actual friend and yet they feel that you owe them details. They feel entitled to know the full story."

It's natural to want to know how someone died, but if loved ones haven't revealed the cause of death, it's not a good idea to air the question publicly. "If you're close friends, they've probably already told you in a different channel than Facebook," DeGroot says. "If you're the one who has to ask what happened, it's probably not your business."

Others might leave insensitive remarks on social media unwittingly. "We're not really taught very well how to offer condolences. Someone might say, 'Oh, I know how you feel because I had a dog die' and so that's the same as your grandpa dying. It feels like you're downplaying the death," DeGroot says.

If you've left condolences online, don't forget to follow up in real life, she adds. Check in with a grieving friend by phone or, better yet, offer to lend a hand with errands or household chores or swing by with that nourishing casserole.

## 3 TIPS

SOCIAL MEDIA CAN BE A MAGNET FOR GAFFES, HURTFUL IN A TIME OF BEREAVEMENT. STEER CLEAR OF ONLINE BLUNDERS WITH THESE CONDOLENCE TIPS FROM JOCELYN DeGROOT, PhD.

### 1. KEEP IT SIMPLE

"You can say, for example, 'I'm really sorry this happened to you. It must be very difficult. If you need to talk, I'm here,'" she says.

### 2. SHUN SILVER LININGS

"When people try to offer that one nugget of wisdom, like they want to be the one to save the day, that's the wrong thing to do. You're not going to make people feel better. You need to let them feel sad," DeGroot says.

### 3. DON'T HIDE OUT

"If you're only Facebook friends with a grieving person, don't hesitate to leave a short note. If you have no other way of making contact, a condolence message on social media might be enough. "It's nice to know that people are thinking of you," says DeGroot.



SKIN CARE

## Acid Test

YOU CAN'T FAIL WITH HYALURONIC ACID WHEN IT COMES TO KEEPING SKIN HYDRATED, SOFT, AND SMOOTH

HYALURONIC ACID (HA) MAY LOOK DIFFICULT TO PRONOUNCE, BUT ITS BENEFITS ARE EASY TO SEE. The naturally occurring molecule acts as a humectant, drawing moisture from its surroundings and keeping the top layers of the skin hydrated. “HA also regulates the hydration of your skin’s lower layers, keeping them firm and elastic,” says Michelle Wong, PhD, a cosmetics chemist. “It’s also important in tissue repair.” You’ll see it featured as a hydrating ingredient in serums, masks, and moisturizers, because it’s effective for treating dry skin and decreasing the appearance of fine lines. “HA can absorb 1,000 times its weight in water,” adds Deanne Mraz Robinson, MD, assistant clinical professor of dermatology at Yale. “It’s particularly great for mature and dry skin.” —LIESA GOINS

# Now Presenting...

WITH WINTER ON ITS WAY, WE COULD ALL USE A LITTLE HELP TO KEEP SKIN LOOKING GREAT. CHECK OFF EVERYONE ON YOUR LIST WITH THESE SKIN CARE GIFT SETS RECOMMENDED BY SNELLVILLE, GEORGIA, DERMATOLOGIST ALIA S. BROWN, MD.

BY Kara Mayer Robinson  
 REVIEWED BY Karyn Grossman, MD  
 WebMD Medical Reviewer

**DEEP DRENCH**

**Neutrogena Hydro Boost Gentle Cleansing Lotion and Hydro Boost Body Gel Cream, \$19**

"A major boost of hyaluronic acid replenishes water and moisture to help make skin soft and supple from head to toe. They're mild and hypoallergenic, so they work for all skin types to suit anyone on your list."



**THE EYES HAVE IT**

**Colorescience 3-1 Eye Kit, \$165**

"This three-piece kit comes with daytime renewal cream, de-puffing hydrogel pads, and nighttime concentrate with a cooling rollerball to reduce swelling and undereye bags while improving fine wrinkles."



**WINTER WONDER**

**Colorescience Sunforgettable Total Protection Duo Kit SPF 50, \$89**

"This sheer zinc mineral powder is in a class of its own. It's light enough to wear over makeup or on your scalp, while the bronzer adds a hint of color."



**CLEAR COVER**

**ElaMD UV Clear Broad-Spectrum SPF 46 and Lip Balm, \$46**

"This facial sunscreen is hypoallergenic, tear-free, and made with 9% zinc oxide for extra sun protection. Pair it with UV lip balm to protect and soothe lips year-round."



**LIGHT TOUCH**

**CeraVe Foaming Facial Cleanser and CeraVe Ultra-Light Moisturizing Lotion, \$26**

"The foaming cleanser gives a gentle but deep clean and helps remove impurities, while the lotion packs a punch with SPF 30 without being too heavy or greasy."





To help you decipher some of the most common beauty marketing claims, we talked to top dermatologists. Here they decode some of the meaningless or confusing ways products are hyped, so you can separate fact from fiction. After all, talk isn't cheap when you're investing in your beauty regimen.

**CLAIM: A PRODUCT IS "CLINICALLY PROVEN"**

**THE REALITY:** This may sound like a product has gone through rigorous lab testing with a significant number of human subjects, but there's no standard for a company to meet in order to make that claim. Some companies can pay an independent laboratory to run tests to demonstrate a product had some effect versus no treatment or a placebo, says Perry Romanowski, a cosmetics chemist in Chicago. Or some companies have their own labs and conduct their own testing. "Any company who pays for testing can claim that their product is 'clinically proven,'" Romanowski says.

"The nature of clinical studies for over-the-counter skin care is elusive—no one knows what they mean by that term," says Manjula Jegasothy, MD, clinical associate professor of dermatology at the University of Miami.

"There is a distinction to doctors as to what 'clinically proven' means. We expect that it means that something was proven on patients, not on animals or in a petri dish or test tubes. With skin care, we don't know one way or another."

Engelman says that some valid testing may have been done when you see these claims on a label, but context is needed. "A sample size of four people and the product being effective on three doesn't make a study relevant—even though 75% of participants saw results," she says. If there's a large sample size of the clinical trial and there was a statistically relevant outcome, Engelman says, then making that statement would have some substance.

**CLAIM: YOU'LL SEE "IN-OFFICE" OR "SURGICAL" RESULTS**

**THE REALITY:** Unfortunately, there's no equivalent of a professional-grade treatment in a jar. "Unless you're going for some non-prescription spa treatment, no one who uses a store-bought or even dermatologist-bought product should expect results they would get from the dermatologist," says Romanowski.

"In-office procedures typically penetrate the epidermis or the dermis or both, and a topical cream can't do

that for the most part due to FDA stipulations," Jegasothy says. "Once a product has a medical effect on cells, it is no longer an over-the-counter cosmetic." So to see surgical results, you would have to affect the structure and function of the body and then it would be categorized as a drug or a medical device and require stricter regulation.

That's not to say that over-the-counter skin care isn't effective and worthwhile. "Topical products are often fantastic, but they have limitations," Engelman says. "They are not able to offer the results that powerful devices, lasers, or surgical treatments can provide." To achieve dramatic, surgical results warrants the oversight of a trained professional. Be wary when a product uses terms that mimic the name of an in-office procedure, Jegasothy says.

"Brands give off the impression that there will be similar results when that's definitely not possible. I think the best you can do is to maintain the results of procedures you've undergone in your dermatologist's office," Jegasothy says. And, Engelman adds, it's perfectly reasonable to expect your skin care to deliver improvement in fine lines, skin tone, and texture.

*Continued on page 23*

# Behind the Claims

BEFORE YOU INVEST IN A NEW BEAUTY TREATMENT, FIND OUT WHAT'S HYPE AND WHAT'S REAL

BY Liesa Goins REVIEWED BY Mohiba K. Tareen, MD, WebMD Medical Reviewer

**IN THE WORLD OF BEAUTY, LOOKING GOOD ISN'T ALWAYS WHAT MAKES A PRODUCT SUCCESSFUL**—sounding good can often be more important. Clever and compelling marketing claims help products stand out from the options on increasingly crowded

shelves. And deciphering the promises that are easily misinterpreted or even blatantly misleading can take a trained professional. In one study, a panel of researchers analyzed magazine beauty ads and found just 18% of the claims to be acceptable.

"The truth is there are not nearly enough people in the governing bodies to cover all the

products, and not all cosmetic products require FDA approvals," says **Dendy Engelman, MD**, a dermatologic surgeon in New York City. Add to that people putting out inaccurate information and perpetuating myths on the internet, which means that consumers are faced with a barrage of misleading or exaggerated jargon about beauty products.

GETTY IMAGES

## DIRTY SECRET

"I don't wear sunscreen in the winter."



**RAYS ARE PRESENT EVERY DAY**

"You need to protect your skin every day of the year—even when it's cloudy. While UVB rays may be less intense in winter months, harmful UVA rays that cause premature aging and play a role in skin cancer penetrate through clouds and glass."

**YOU CAN STILL GET BURNED**

"If your winter activities take you to the mountains, remember that you are in an elevated area and are much closer to the sun—you must apply sunscreen to any exposed skin or you risk a severe sunburn. People often forget to protect their lips, but the lower lip is at greatest risk for developing squamous cell skin cancers. Be sure to use a lip balm with SPF."

**MAKE SPF PART OF YOUR ROUTINE**

"Look for a formula that includes a physical block like zinc oxide. And if your skin feels dry due to the winter weather, a moisturizing sunscreen may feel more appealing. If you are really resistant to wearing sunscreen during cold months, use a daily lotion with SPF, such as EltaMD UV Daily Broad-Spectrum SPF 40 or Avène Antirougeurs Day Soothing Cream SPF 25."

—Carolyn Jacob, MD, dermatologist and founder and director of Chicago Cosmetic Surgery and Dermatology

Continued from page 22

## “PEOPLE THINK CHEMICALS ARE BAD. I THINK SYNTHETIC INGREDIENTS ARE WHAT MOST PEOPLE ARE REFERENCING.”

### CLAIM: A PRODUCT IS FREE OF CHEMICALS

**THE REALITY:** This is misuse of a basic term. “When companies say ‘chemical-free,’ they are lying—or at least misleading the consumer,” Romanowski says. “All matter is chemical, so all products are chemical.”

“Even water is a chemical,” Engelman says. “Colloquially, it’s just a term with a bad connotation—people think chemicals are bad. I think synthetic ingredients are what most people are referencing.”

No matter your definition of “chemicals,” they are practically unavoidable, and claiming to lack them isn’t a helpful distinction. “What brands might be trying to say is that there are no petroleum-derived ingredients, or they only contain plant-derived ingredients. But even ‘natural’ ingredients are chemically processed,” Romanowski says.

Engelman explains that synthetic preservatives are often necessary to help with shelf life and that in some instances man-made ingredients can be more effective because they are designed to address specific issues, such as certain forms of vitamin A and vitamin C.

### CLAIM: A PRODUCT CAN DELIVER “IMMEDIATE RESULTS”

**THE REALITY:** This is a bit of a deceptive gray area, Romanowski says. “That depends on what results you are talking about. Yes, a moisturizer will immediately make your skin look and feel better; lipstick immediately changes the color of your lips; shampoo immediately cleans your hair,” he says. “But for things like reducing wrinkles, nothing will do that immediately.”

Engelman concurs. She says that ingredients can camouflage symptoms, but it’s not possible to see results instantaneously.

Instead, you need to use a product consistently over time for weeks or even months before you can expect to see change.

### CLAIM: A TOPICAL INGREDIENT CAN “NOURISH” YOUR SKIN

**THE REALITY:** “That term is just fluff,” Jegasothy says. “Nourishment comes from within from the foods you eat. You’re not feeding your cells with cream.” Think about it: Your skin doesn’t have a digestive system to absorb nutrients. As Romanowski says, the vast majority of the ingredients you topically apply penetrate the top layer (the stratum corneum) and are slowly sloughed off over time. They do not typically penetrate deeper into the dermis to get where the living cells are. He says the idea of nourishing your skin is a bit like nourishing your leather shoes.

This claim falls into a category of marketing terms that Romanowski calls “weasel words.” They give the impression they are saying something but really don’t mean anything. Jegasothy puts the word “rejuvenating” in this category as well. “These are terms that have no scientific meaning and are so vague that brands can cleverly use them to market,” she says.

So what can you do to get past all the hype? Instead of being influenced by claims and impressive language, Jegasothy suggests reading an ingredients label: “In my opinion, if a product doesn’t have some form of retinol, glycolic acid, salicylic acid, vitamin A, vitamin E, or vitamin C, it’s just a really nice moisturizer.”

Her advice is to consult your dermatologist for effective products and then stick to a program. “The most effective skin care product is one you will use,” she says.

## AISLE DO

### PIT STOP

THE HEALTHIEST WAY TO FRESHEN UP YOUR UNDERARMS? AN ALL-NATURAL DEODORANT STICK, SAY THESE THREE PHYSICIANS.



#### PRODUCT PICK CRYSTAL MINERAL DEODORANT (\$7)

“Especially great for people with sensitive skin, this stick does not leave a thick, white residue. Its natural minerals go on clear to help block the odor produced in the glands in the armpit.”

**Ehsan Ali, MDe**  
primary care physician,  
Beverly Hills, California



#### PRODUCT PICK TOM'S OF MAINE DEODORANT (\$5)

“This deodorant stick provides long-lasting odor protection but doesn’t contain aluminum chloride. It works well and appears safer than anything else I’ve considered.”

**Janet Prystowsky, MD**  
dermatologist, New York City



#### PRODUCT PICK ARM & HAMMER ESSENTIALS NATURAL DEODORANT (\$4)

“Some skin types and medical conditions predispose people to discoloration and sensitivity reactions under the arms. This deodorant is the least irritating one I’ve found that actually works!”

**Roberta Beals, DO**  
owner, Healthy Skin Clinic,  
Lubbock, Texas

THE OPINIONS EXPRESSED IN THIS SECTION ARE OF THE EXPERTS AND ARE NOT THE OPINIONS OF WEBMD. WEBMD DOES NOT ENDORSE ANY SPECIFIC PRODUCT, SERVICE, OR TREATMENT.



DERM Q&amp;A

# Clean Slate

IT MAY HAVE BEEN A GOOD IDEA AT THE TIME, BUT THAT TATTOO YOU LOVED THEN MAY BE WEARING THIN. HERE'S WHAT YOU CAN DO ABOUT IT.

BY Kara Mayer Robinson **REVIEWED BY** Mohiba K. Tareen, MD, WebMD Medical Reviewer

## ITCHING TO BID ADIEU TO AN OLD TATTOO?

Today's removal techniques make it possible to erase what you thought was permanent and give you a do-over. But skip the creams, do-it-yourself kits, and home-removal techniques like salabrasion, says **Elizabeth Geddes-Bruce, MD**, a dermatologist in Austin, Texas. "They're not very safe or effective. We recommend you avoid these products to ensure you don't make the area appear worse," she says. She answers some common questions.

## Q Can a tattoo really be fully removed, and does it matter if I have light or dark skin?

**GEDDES-BRUCE** Yes, it's possible to completely remove all of the ink in a tattoo. In general, older tattoos and single-color tattoos respond better to laser removal. Skin color only affects which laser wavelength is used, not the response of the tattoo.

## Q Can I go to a tattoo shop for removal or should I see a dermatologist?

**GEDDES-BRUCE** It's best to see a board-certified dermatologist to safely remove your tattoo with minimal side effects. Dermatologists are medically trained skin and laser experts and can help you achieve the best results.

## Q How do dermatologists remove tattoos?

**GEDDES-BRUCE** We mostly use Q-switched lasers, which emit high-energy bursts very quickly to target the ink and minimize scarring. Occasionally we may use fractionated lasers to feather scarred areas or attempt to remove stubborn pigment. Some dermatologists use another method called pico second lasers, which emit an even faster pulse of light to break up the tattoo color particles.

## Q How long does it take, and do I need more than one visit?

**GEDDES-BRUCE** The treatment time is generally very quick, usually ranging from seconds to a few minutes, depending on the size of the tattoo. The visit may be longer if topical or injectable numbing is offered. The number of visits is almost impossible to predict because each person responds differently to laser treatment.

## Q Will it hurt?

**GEDDES-BRUCE** Laser tattoo removal can be very painful, so we often offer numbing with a topical cream, injections with a numbing solution, and distracting techniques like vibration or cool air.

## Q What's the recovery like?

**GEDDES-BRUCE** Recovery depends on how aggressive the treatment is and can range from mild redness to crusting to occasional blisters. In general, skin is healed in about a week.

## Q What will my skin look like?

**GEDDES-BRUCE** Right after the treatment, your tattoo may temporarily appear white and then the skin will turn red. After the tattoo is removed, you may have normal-looking skin or a slightly lighter shadow of the prior tattoo. This can fade over time or with the help of fractionated lasers.

## Q Are there risks?

**GEDDES-BRUCE** There are risks of temporary or long-lasting lightening or darkening of your skin, changes in skin texture, changes in tattoo color, or incomplete removal.



Search for the article **Laser Tattoo Removal: What to Know** at [WebMD.com](http://WebMD.com).

## 4 TIPS

READY TO ERASE YOUR INK? THESE TIPS FROM DERMATOLOGIST **ELIZABETH GEDDES-BRUCE, MD**, MAY HELP YOU GET THE RESULTS YOU'RE LOOKING FOR.

### 1. AVOID THE SUN

Keep the area being treated protected from the sun. Tan skin can increase your risk of burns and make treatments less effective.

### 2. STOCK UP ON OINTMENT

After treatment, keep the area protected with an ointment like Aquaphor to help it heal better.

### 3. TRUST AN EXPERT

Seek out an expert in tattoo removal to maximize your chances of getting rid of it right. The cheapest offer probably won't give you the best results.

### 4. BE PATIENT

The best results happen when laser treatments are spaced further apart. Every six to eight weeks is usually better than monthly.



CONNECTING

# Gifts That Spark Joy

EXPERTS SAY GIVING EXPERIENCES INSTEAD OF TOYS CAN STRENGTHEN THE BONDS BETWEEN PARENTS AND KIDS

**MAKING YOUR LIST AND CHECKING IT TWICE?** You may want to cross off that new iPad and sub in an annual membership to your local zoo. A recent study found that gifting experiences instead of material things can actually improve the relationship between the gift giver and the recipient. Why? Experiential gifts tend to spark greater emotional responses—the excitement of rock climbing is often more memorable than, say, unwrapping a new shirt. And stronger emotions translate into deeper social connections, says Cindy Chan, assistant professor at the University of Toronto and lead author of the study. When holiday shopping for your kids this year, consider choosing something new you can do together, like snorkeling, ice skating, or joining a hiking club, and you may get the greatest gift in return—a closer relationship. —COLLEEN OAKLEY

# Feeding Time

NEW USDA GUIDELINES, COMING SOON, WILL ADVISE HOW AND WHAT TO FEED INFANTS AND TODDLERS BEFORE AGE 2

BY Erin O'Donnell

REVIEWED BY Hansa Bhargava, MD, WebMD Senior Medical Editor



**IF YOU'VE EVER DEBATED WHAT TO FEED YOUR BABY, STAY TUNED:** The U.S. Department of Agriculture is working on its first-ever dietary guidelines for babies from 0 to 2 years old. (Previous guidelines only offered advice beginning at age 2.) A government panel of experts is currently reviewing nutrition research and writing the new guidelines, which are expected in the next year or so.

People who specialize in infant nutrition say the foods babies eat in their first two years set the stage for future health. "It's a window identified by science as a critical time period, when the absence of good nutrition could have a significant and irreversible impact on a child's health, future well-being, and brain development," says Lucy Sullivan, founder and executive director of 1,000 Days, an advocacy organization focused on nutrition for pregnant women and babies in the time between conception and baby's second birthday. Sullivan hopes the forthcoming guidelines give parents clarity about what and how to feed babies. "There is, unfortunately, a lot of confusion out there," she says. Here's some of the advice she would like to see in those guidelines.

**A boost for breastfeeding.** Sullivan hopes the new guidelines follow the lead of the American Academy of Pediatrics (AAP) and the World

Health Organization, which encourage moms to breastfeed exclusively for the first six months and to continue until the first birthday while introducing solid foods. Moms and babies can continue beyond 12 months if it works for both. Among its merits, "breast milk has unparalleled brain-building benefits," Sullivan says, in part because it contains beneficial fats known as long-chain polyunsaturated fats.

**A call for variety at 6 months.** Sullivan expects the guidelines to address the process of introducing solid foods at 6 months. Although many families start with rice cereal, that should be just one of the first foods. "The more tastes and textures you can introduce the better, because it trains the baby's palate for later life," Sullivan says. Give baby tastes of vegetables such as broccoli or asparagus—and do it regularly—even if he makes a face; he may need repeated exposure to like those flavors. Sullivan adds that meats and fish are also important in the first year because they provide iron, protein, and beneficial fats, all critical as baby grows.

**A ban on fruit juice in the first year.** The AAP recently urged parents to skip fruit juice before baby's first birthday, and Sullivan expects the dietary guidelines to echo that rule. "Fruit juice tends to be high in sugar, and it replaces more nutrient-dense food," she says.

Search for the article **Feeding Baby the First Year: The Right Foods for Each Stage** at WebMD.com.

## 4 FOODS

THE ORGANIZATION 1,000 DAYS SUGGESTS INTRODUCING INFANTS TO A VARIETY OF FOODS BEGINNING AT 6 MONTHS. HERE ARE SOME SMART CHOICES TO INCLUDE IN THOSE FIRST OFFERINGS:

### 1. MEATS

Red meat and dark poultry are rich sources of iron and protein, which are critical for brain development in baby's first two years. Many infants and toddlers don't consume enough iron. Eggs are also a good choice.

### 2. LEGUMES

Beans and lentils are another key source of iron and protein and are an ideal food for babies learning to pick up small objects with their thumb and forefinger, a developmental milestone.

### 3. BROCCOLI

Sullivan recommends offering vegetables such as broccoli and carrots early on so babies learn to tolerate (and even enjoy) these flavors as they grow.

### 4. FISH

Cold-water fish such as salmon, mackerel, and herring contain long-chain polyunsaturated fatty acids (similar to the fats in breast milk), which are necessary for development of the brain, eyes, and other tissues. Seeds and nuts also have healthy fats.



# Weight Matters

THE POUNDS YOU TAKE INTO YOUR PREGNANCY MAY BE MORE CONSEQUENTIAL THAN HOW MUCH YOU GAIN DURING IT

BY Stephanie Watson **REVIEWED BY** Nivin C.S. Todd, MD, WebMD Medical Reviewer

**DOCTORS HAVE LONG RECOMMENDED CHECKS ON WEIGHT GAIN DURING PREGNANCY.** Yet according to research, the weight you carry into your pregnancy matters. Going into your pregnancy overweight or obese increases your odds of complications even more than gaining too much weight during those nine months, according to a recent study in *JAMA*.

Miscarriage, high blood pressure (preeclampsia), gestational diabetes, preterm birth, and C-section delivery are all concerns for moms with obesity. They may also have a longer labor and slower healing afterward, says Michelle Kominiarek, MD, associate professor in the department of obstetrics and gynecology, Northwestern University Division of Maternal-Fetal Medicine. "The higher the weight or the greater the BMI, the higher the risk for complications," she says.

As soon as you start thinking about parenthood, consider whether you're at an optimal weight. How much you should lose before conceiving depends on whom you ask. "Some societies recommend achieving a normal BMI before pregnancy, but for some women that may be a difficult demand," Kominiarek says. Losing 5% to 7% of your weight—about 10 to 20 pounds—is a more realistic goal. That minimal amount of weight loss could also improve your odds of conceiving.

Women with a BMI of 40 or a 35 BMI plus conditions like diabetes or high blood pressure may be good candidates for bariatric surgery. Plan to wait for a year

or two after the procedure to get down to your goal weight and give your body time to adjust before you get pregnant. Once you do conceive, you'll be at lower risk for complications such as high blood pressure or diabetes after the surgery.

Entering your pregnancy heavier than you'd like can still lead to a healthy outcome. Work with your doctor to control weight gain and get regular monitoring for possible complications. "We typically screen for diabetes during pregnancy at around 24 to 28 weeks, but sometimes in women with particular risk factors, including a higher BMI, we screen earlier," Kominiarek says.

Women with a BMI higher than 40 should also have non-stress tests weekly starting at around week 36 until they deliver. This test places a belt around your belly to monitor your baby's heartbeat and activity level. Or, you might get a biophysical profile, which evaluates the baby's heart rate, breathing, movement, and amniotic fluid level. A low score could indicate the need for an early delivery.

If you haven't reached your goal weight by the time you conceive, pregnancy isn't the time to diet. "I never recommend that anyone lose weight during pregnancy," Kominiarek says. If you eat too little, your body will mobilize your own nutrient stores to support your growing baby. Save the dieting for after you deliver and add in some gentle exercise once you're ready to help you shed that pre- and post-baby weight.

## BY THE NUMBERS

40%

Percentage of women in the United States who are obese.

47%

Percentage of pregnant women who gain more than the amount of weight recommended by the National Academy of Medicine.

15 to 25

Number of pounds you should gain during pregnancy if you start out overweight. If you're obese, gain no more than 20 pounds.

61%

The percentage of very obese women who had complications during pregnancy, compared to 37% of women overall.



# 'Tis Better to Give

URNS OUT, TEACHING YOUR KIDS TO GIVE AWAY THEIR MONEY IMPROVES THEIR FINANCIAL LITERACY. AN EXPERT EXPLAINS WHY.

BY Colleen Oakley REVIEWED BY Brunilda Nazario, MD, WebMD Senior Medical Editor

**WHEN IT COMES TO MONEY SMARTS**, we often think teaching kids how to budget and save will set them up for greater success in life. But new research suggests teaching our children how to give their money away makes them more financially savvy adults.

“When you teach kids about charitable giving, you teach them to set aside a portion of their money for others, which shows them that you can split up your money for different purposes,” says Leslie H. Tayne, a financial attorney and author of *Life & Debt*. “This is the foundation of budgeting and eventually translates to understanding the idea of putting money away for savings, paying off debt, retirement planning, and many other areas they’ll need to set aside money for later in life.”

The study also suggests generosity makes them happier and healthier in the long run. “Donating helps give children a sense of empowerment in our very uncertain and often frightening world, and it teaches them that even their small efforts can make a difference,” says Tayne. “Often, the positive feelings involved with giving away money will lead to wanting to give more—and in more ways than just financially.”

Here are three ways to easily introduce the concept of giving to your kids:

**Start small.** Whenever your kids receive money, you can suggest a small amount to give away. For example, if they got \$5 for their birthday, they could think about giving \$1 to people or animals in need. And as they age, have age-appropriate conversations on the amount to be given. Saving change (even pennies) or using a “give jar” or another visual representation can also help them understand the concept.

**Find a meaningful cause.** Help them find something that they’re passionate about. For example, if they love sports, there may be an option to donate to a cause that helps provide opportunities for children in need to play sports. Or mention causes that you have given to and explain why that particular cause is important to you. Your child may be inspired to follow your example. If you can, consider volunteering or visiting the organization you’re donating to so your child can see firsthand how their donation is being put to use.

**Choose how often to give.** Figure out what works for your family—you can give once a week or once a year. “There’s no set time to give,” says Tayne. “But the holidays are often special times for families and a good time to teach them about giving to others.”

## BY THE AGES

HOW TO TEACH KIDS TO GIVE AS THEY GROW, ACCORDING TO EXPERT LESLIE H. TAYNE.

### 3 to 5

Though they’re probably not old enough to have money of their own, you can still talk to kids about the idea of charity and what giving means to you and to them.

### 6 to 12

Once kids begin receiving their own money for birthdays or allowance, encourage them to set a portion aside for charity. “At this age, they will begin to have a stronger understanding of the idea of giving back and that there are others who have less than they do,” says Tayne.

### 13 to 18

When kids get their first job, suggest they increase their charitable contributions based on a percentage of what they’re making. “While most teens are naturally more self-involved, they’re still capable of compassion and empathy,” says Tayne. “Giving reinforces those emotions, which will take them very far in life.”





# ADHD Smarts

HOW TO OVERCOME DAY-TO-DAY CHALLENGES WHEN YOU CARE FOR A CHILD WHO NEEDS HELP WITH SELF-MANAGEMENT SKILLS

BY Stephanie Watson **REVIEWED BY** Smitha Bhandari, MD, WebMD Medical Reviewer

**WHEN YOUR CHILD HAS ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD),** it can turn your home upside down. **Mark Bertin, MD,** a developmental behavioral pediatrician in Pleasantville, New York, and author of *Mindful Parenting for ADHD*, offers tips to help you keep control.

**Q What do parents need to know about their child's ADHD?**

**BERTIN** ADHD relates to a skill set known as executive function. It's the cognitive skill set that deals with self-management, not just attention or behavior. Raising a child who's behind in those skills can be stressful and tiring for parents, which then makes caring for ADHD harder. That's one reason why it's so important to learn about ADHD. Getting an evaluation from a mental health professional can help you understand what's going on with your family.

**Q How do you find the right parenting style to fit your child?**

**BERTIN** When you're a parent to someone who's behind in self-management skills, they typically require a structured approach to giving positive feedback and discipline, including clear limit-setting.

**Q How do you help build the executive function skills these kids lack?**

**BERTIN** Start by meeting kids where they are developmentally, as they are delayed around specific skills. There are a number of professionals in different fields that can help, including psychologists or behavioral pediatricians or sometimes an ADHD coach. These specialists teach kids how to build skills through household routines and homework structure or how to handle impulse control and other aspects of ADHD.

**Q How do you encourage good behavior without constantly punishing children or sending negative messages?**

**BERTIN** Kids with ADHD often need lots of correction, so we need to create balance for them. It's not that kids shouldn't be corrected, it's that they ideally get more positive feedback than negative. Really go out of your way to find their strengths and focus on successes. One basic step is to reward the opposite of problem behaviors. Now they are working toward a goal instead of being corrected.

**Q How do you calm kids down when they get out of control?**

**BERTIN** When any of us get swamped emotionally, in that moment it's really hard to think rationally. Parents will find it easier if they have a solid plan ahead of time for how they're going to steer their child's behavior. For example, use a reward plan to encourage good behavior or time-outs to diffuse the situation before it escalates. Talk about how to manage emotions outside of these intensely stressful moments.

**Q What types of therapies can help kids with ADHD?**

**BERTIN** There are a lot of interventions that help with ADHD, including behavioral and holistic treatments. Medications have been shown to be safe and effective if they're used right. Consider medications as an option, just as you would for any other medical disorder, and decide if you think they're worth trying if your child continues to struggle.

**Q How can parents address behavioral issues in school?**

**BERTIN** Kids with ADHD should have, and are entitled to, a supportive, structured behavioral plan in school. A 504 Plan also provides the supports needed to do well in school, which helps improve behavior. And when parents are more structured about behavioral management at home, that will spill over into school, too.



# Surviving the SATs

JUNIOR YEAR IN HIGH SCHOOL BRINGS A BATTERY OF HIGH-STAKES COLLEGE ADMISSION TESTS THAT CAN STRESS OUT EVEN THE MOST LAID-BACK PARENTS AND THEIR EASYGOING KIDS

BY Lauren Paige Kennedy REVIEWED BY Roy Benaroch, MD, WebMD Medical Reviewer



**WHAT IS IT ABOUT THE SAT (SCHOLASTIC ASSESSMENT TEST) AND THE ACT (AMERICAN COLLEGE TESTING) THAT CAN MAKE SEEMINGLY SANE PARENTS GO OFF THE DEEP END?** If you follow the news, you know some desperate moms and dads even resort to bribery and fraud to ensure their children get high scores.

Kids are stressed, too. The pressure some students feel comes from parents, competitive peers, and schools, says clinical psychologist Barbara Greenberg, MD, who specializes in the treatment of teens and their families.

“An important first step is sitting down with your child before junior year begins to create a schedule that works for everyone,” Greenberg says. “A plan provides a clear picture leading up to big exams that are taken in the spring, which can help reduce anxiety.” Such schedules may detail when to squeeze in practice tests and tutoring sessions around sports and other activities during what is considered by many to be high school’s toughest academic year.

Stefanie Lob, Westchester and Fairfield counties partner at Private Prep, a national chain that provides tutoring and practice testing, agrees. “Sitting down with all parties early on and being on the same page is how we like to work,” she says. “Students will buy into a schedule if you allow them to be part of the process,” especially since kids often have a better understanding of the demands on their time than their parents do.

Tackling anxiety is key—for all involved, Lob adds. “We develop relationships with both parents and students,” she says, “because their needs are not always the same.” When it comes to the behavior of parents at this time, she’ll only say, “We’ve seen it all.”

To develop better student coping skills, the team at Private Prep partnered with a sports psychologist and mental coach to improve performance under pressure. “A student can do all the work and learn the content and strategies, but if he or she has a hard time on

Search for the article  
What Is Stress? at  
WebMD.com.

## 4 TIPS

CLINICAL PSYCHOLOGIST  
**BARBARA GREENBERG**  
AND PRIVATE PREP  
PARTNER **STEFANIE LOB**  
SHARE THEIR WISDOM.

### 1. APPLY THE PREMACK PRINCIPLE.

This psychological rule of reinforcement means “getting the stuff done you don’t like to do first, then rewarding yourself with what you do like to do,” says Greenberg. Ask your kids to spend two hours studying with a tutor. Then take them shopping or out to dinner.

### 2. DON’T ASSUME YOU CAN’T AFFORD PREP COURSES.

There are many different programs out there at different rates, Lob says, so parents need to educate themselves. “We provide a scholarship program offering identical services,” she says. “Our challenge is to recruit enough candidates” to apply for them, she adds.

### 3. DON’T LIVE THROUGH YOUR CHILD.

Much of the stress kids feel is due to sky-high parental expectations. “Your kid’s test result is not a reflection of you or your parenting skills,” says Greenberg.

### 4. THERE ARE MANY ROADS TO ACHIEVEMENT.

“Some kids may take the SAT or ACT several times,” says Lob, before they feel satisfied with a score. Others may do OK, but not ace either—and that’s fine, too, Greenberg adds: “Not everyone gets into the Ivy League. There are many measures of success.”

test day, it can all go down the drain,” says Lob.

Greenberg advises parents to allow their kids to vent as pressure mounts and test day draws ever nearer. “Don’t try to fix them,” she says. “Just listen.”

Theresa Mohan, general council of a New York-based tech firm and a mother of four daughters, two of whom are recent college graduates, has been down this road before—and she’s gearing up to do it again with her younger set of twins.

“I think the junior year is the most stressful year for a first-time parent, and it’s independent of the relationship between parents and child—it happens in the school,” she says. “There’s no immunity. Everybody’s talking about it.”

Mohan says different children can bring different—and surprising—outcomes: “For my oldest daughter, who puts a tremendous amount of pressure on herself, we did a prep course after she did really well on the PSAT. Then she took the SAT, did well, but saw nominal improvement.”

Lob says it’s standard for kids to take practice tests for both the SAT and the ACT to see on which exam they naturally perform better. “Then our tutors focus their efforts on one or the other,” she says, noting that students typically take five or six additional practice tests before taking it for real.

“My daughter applied for early admission to a big, top-tier school—and was not accepted,” Mohan says. “She eventually chose a smaller liberal arts school, which was more in keeping with what she wanted when we did college tours. My second daughter did not do as well on the PSATs. We thought a prep

course might feed her stress, so we went with a private tutor. She did just OK on the SAT—but the ACT she blew out of the water. That score changed her trajectory. Suddenly, she had higher-tier options.”

Greenberg advises parents not to downplay the importance of sleep and exercise during this intense time, which is potentially life-changing. “Kids don’t do well if they’re exhausted or rundown,” she says. “You may be tempted to let them study to all hours. But they need balance. This is no time to get sick, yet I see it in my practice a lot.”

Karen Dukess, author of *The Last Book Party* and mother of two sons in college, offers this important—and often overlooked—tip: “Sign up for the exam in the location that works best for you at least a few months before the actual test. With my oldest, all the local spots were filled, and I had to drive him to another state.” She also suggests budgeting extra time on test day: “Expect a sea of cars all trying to drop off kids at the same time. My youngest son had to get out of my car and run to make it on time!”

Lob agrees. “Control the ‘controllables,’” she says. “Manage time, so on test day students bring their best.”

Finally, there’s this bit of wisdom from Mohan: “I’m in boardrooms and C-suites, and there’s no uniformity to it, nor to the journey of how people got there,” she says. “Try to have a mindset that it’s all going to be OK. Building resilience in your kids is most important. There are many paths to get to where they want to go.”



4 QUESTIONS

CYNTHIA OTTO, DVM, SUGGESTS TALKING TO YOUR VET ABOUT AGILITY TRAINING.

**Q Is my dog healthy enough for agility training?**

Agility might be too intense for older or overweight dogs or dogs with health issues such as arthritis. “Talk to your vet before participating in agility with your dog,” Otto says.

**Q Should we do any training before starting agility?**

Otto believes your dog should know basic commands like “sit,” “stay,” and “come” before you unclip the leash and let them run the course.

**Q Can all dog breeds participate in agility?**

The sport attracts dogs of all sizes, but you need to be careful about engaging in a high-intensity activity with certain breeds of dogs. Brachycephalic breeds such as bulldogs, pugs, and chihuahuas have short noses that can cause breathing issues. “These dogs are much more likely to overheat,” says Otto.

**Q How can I take our training to the next level?**

Your vet may be able to recommend trainers, programs, or clubs where your dog can learn new skills and compete against other dogs.

PETS

# Staying the Course

AGILITY TRAINING PROMOTES YOUR DOG’S MENTAL AND PHYSICAL WELL-BEING

BY Jodi Helmer

REVIEWED BY Will Draper, DVM, WebMD Medical Reviewer

**TEACHING YOUR DOG TO RUN THROUGH A TUNNEL, WEAVE THROUGH POLES, AND JUMP OVER HURDLES MIGHT SEEM FRIVOLOUS,** but navigating an obstacle course can provide important mental and physical stimulation that contributes to overall well-being, says Cynthia Otto, DVM, PhD, executive director of the University of Pennsylvania Working Dog Center.

“Agility is all about having fun and encouraging your dog to be active and learn new things,” she adds.

Dogs participating in competitive agility trials are judged on speed and accuracy, but you don’t have to compete for a blue ribbon to benefit from the sport. Set up a mini agility course in the backyard or look for facilities like dog parks that offer different obstacles to see if your dog takes to the idea of navigating a course.

Make sure obstacles are the right size for your dog; to avoid injuries, a dachshund will need lower beams, hurdles, and ramps than a Labrador retriever.

Agility is a high-intensity sport, and injuries are possible. A study published in the *Journal of the American Veterinary Medical Association* found that 32% of dogs that participated in agility had at least one injury. Watch your dog for signs of overheating, including excessive panting, drooling, and lethargy, and take breaks as needed. Also, if your dog limps or seems hesitant to move, see your vet right away for possible muscular, bone, joint, or ligament trauma.

Some training will be required—Otto encourages using positive reinforcement, not punishment, when teaching dogs to navigate the course—but dogs that have to be repeatedly cajoled to complete an obstacle might not be enjoying the activity or the intensity might be too much for their fitness level.

“If your dog is stiff afterward or doesn’t want to move around, you might need to take it slower,” Otto says. “You wouldn’t show up at the starting line of a triathlon with no training; you need to build your dog up to navigating a course at a fast pace. Start slow.”

GETTY IMAGES



LEAN

INTO  
LIFE

BY STEPHANIE WATSON  
REVIEWED BY BRUNILDA NAZARIO, MD, WEBMD SENIOR MEDICAL EDITOR

DAVID NEEDLEMAN / TRUNK ARCHIVE

HOW  
TIM  
MCGRAW  
TURNED  
HIS HEALTH  
AROUND



Tim McGraw is an hour late for our interview and apologetic, but he has a good excuse. For the last two hours, he's been surfing along the coast of Monterey, California, with his daughter Maggie's boyfriend. It's his first time on a board and another checkmark on a bucket list of sorts, the embodiment of his 2004 hit song, "Live Like You Were Dying."

Unlike the song, that list might not include a bull named Fu Manchu, but McGraw did learn to pilot a plane and discovered a passion for spearfishing. Staying engaged and exploring new things is how he keeps his life in gear and avoids the doldrums.

"Everybody goes through times when they're not in the right spot," says the 52-year-old Grammy- and Country Music Award-winning singer. Ten years ago, McGraw found himself in the wrong spot, out of sync with life and in what he calls his "dark place." He hadn't fallen to the depths some hard-partying musicians plunge into with drugs and alcohol. He'd just been drinking a few too many beers and eating a little too much junk food out on the road—lapses that had caught up with him to the tune of 40 extra pounds.

A reality check came when he took his eldest of three daughters, Gracie, to the movies near their Nashville home. As the trailer for *Four Christmases*, a holiday film in which he had a small part, flashed up on the screen, Gracie rolled her eyes. "She didn't have to say another word; the screen said it all. My face was inflated and doughy and my skin looked tired and dull. It was a punch in the gut moment," McGraw writes in his new book, *Grit & Grace*.

"I felt like I was in a place in my life that I'd worked hard to get to. I had a great family and a great, supportive wife [fellow country singer Faith Hill] who was just killing it in her own right. And I wasn't capitalizing on the best part of my life," he says. "I wasn't taking care of myself as well as I should have been."

The realization that the path he was on might not keep him around long enough to see his children grow up hit him hard. "I wanted to be around to see what they became in life—to see what their lives looked like, who they married, and the children they had," he says. "The way you do that is to take a look at yourself in the mirror and figure out how you need to prioritize your life."

## TRANSFORMATION

He prioritized by making a commitment to turn his health around. No more drinking. No more junk food. Exercise every day.

McGraw was no stranger to physical fitness. He'd been a standout athlete in high school and had remained active throughout most of his adult life, aside from those recent lapses. Still, he knew better than to ramp back up too quickly. "I started just by walking," he says. "I got up every day and got my shoes on and I'd walk out for 10 minutes and walk back. Gradually, I kept doing that and added time to it and then added more things to it."

As his fitness improved, McGraw became more aggressive with his workouts. He filled an entire trailer in his tour convoy with giant tires, sledgehammers, battle ropes, and barbells—everything he needed to push his body to the limit. The result

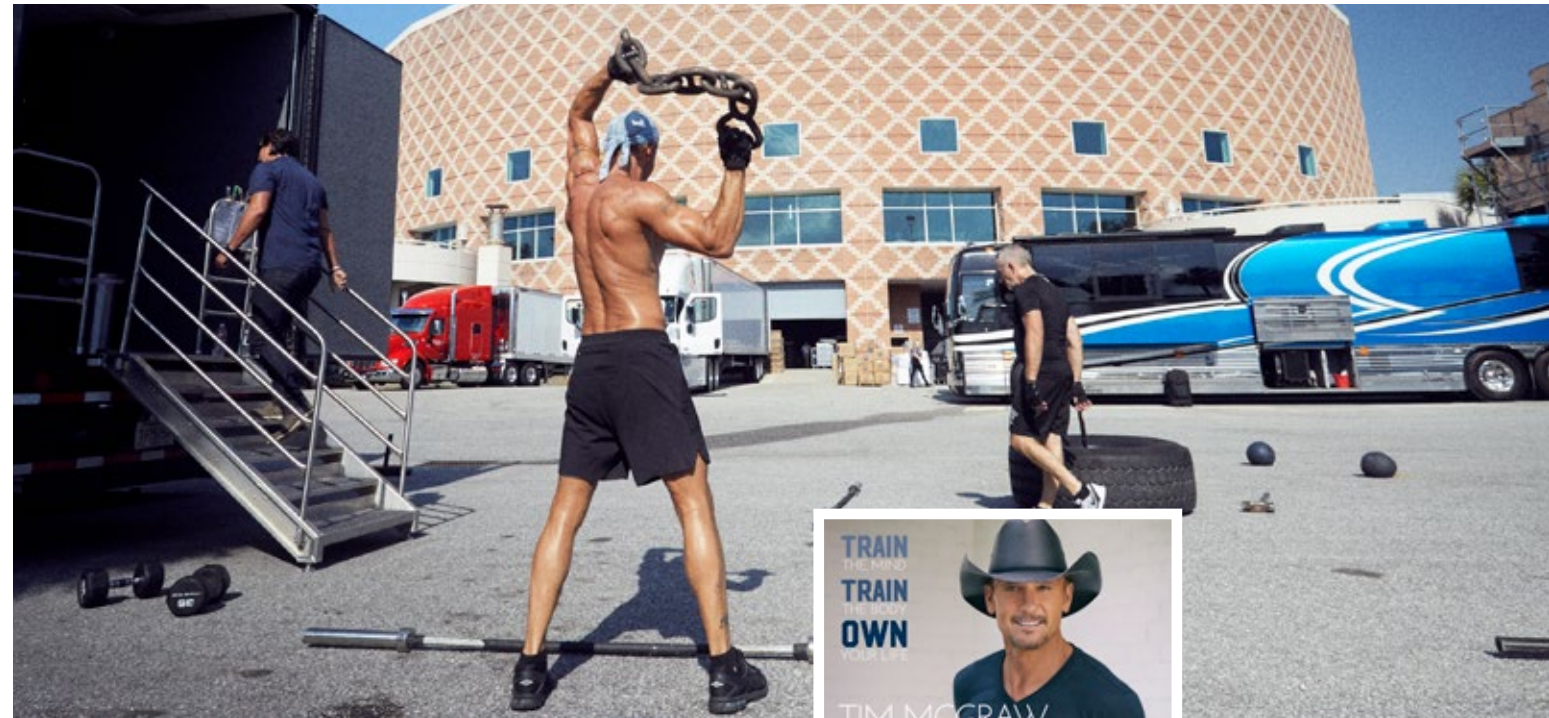


is a mobile gym so intimidating that his fiddle player, Deano Brown, termed it the "Gorilla Yard." McGraw opened up the Gorilla Yard to his band and crew, encouraging them to get in shape with him. It was piano player Billy Nobel's first introduction to serious fitness training, and he took to it quickly. "He came out and just really jumped right into it right away. Within six weeks, he'd completely changed his body," McGraw says.

The dramatic transformation he saw in himself and his crew moved McGraw to write *Grit & Grace*. While he doesn't expect everyone to follow the same path he did, he hopes his story will inspire people whose motivation needs a little jump-start. "Everybody's journey is different, and everyone is going to approach things in a different way," he says. "But I think if you can see someone else, it can help you navigate a little bit, and maybe help you know that you can navigate."

## LEAN BODY, STRONG VOICE

McGraw's toned physique is in sharp contrast to the soft-around-the-edges image he saw displayed 30 feet high on a movie screen a decade ago, but he wasn't aiming for brawn alone. Workouts had made his body buff, but he still felt stiff. To improve his agility, McGraw called in the talents of trainer and



GETTY IMAGES; PHOTOS COURTESY OF TIM MCGRAW



FAR LEFT: TIM MCGRAW CALLED ON A TRAINER TO HELP HIM GAIN MORE ENDURANCE WHILE PERFORMING.

TOP: MCGRAW WORKS OUT IN THE GORILLA YARD.

BOTTOM LEFT: FAITH HILL AND MCGRAW ON THEIR 2017 "SOUL2SOUL" TOUR.

INSET: MCGRAW'S NEW BOOK.

former competitive martial artist, Roger Yuan, the man behind many of the hardcore fight scenes in action films like *47 Ronin* and *Skyfall*.

"What he was challenged most by was flexibility and functional strength moves and using the body and core to generate speed, power, and economic movement," Yuan says. By practicing yoga postures, stretches, and animal-like movements (lizard and bear crawls, chimpanzee hops), McGraw became more pliable and gained what Yuan calls "a certain martial attitude with graceful transitions from one deeper stance to another, to be more athletic and have more endurance during the show."

Anyone fortunate enough to have seen McGraw perform in Tampa back in 2015 witnessed the fruits of those workouts. Toward the end of "Live Like You Were Dying," he crouched down almost to stage level, and while in that position, held a note for a full 10 seconds. It was a vocal feat he says he'd never

"I WASN'T CAPITALIZING ON THE BEST PART OF MY LIFE."

have been able to achieve 15 years earlier. "I use my whole body when I sing. I use my legs. I'm trying to wring tone out everywhere to get my voice the way I want it to sound," he says. "I think I sing better than I have in my entire career. I know I can sing higher than I used to. My range is larger than it used to be. That comes from a combination of being fit and not having to try to find your wind in order to sing."

McGraw likens this performance power to his early years playing football, baseball, and basketball. "A lot of what I do onstage, I feel it's athletic," he says. "The whole buildup to the show is sort of like getting ready for a football game."

## GRATITUDE

Athleticism is intrinsic to McGraw. To say it's in his genes wouldn't be an overstatement. His father, Tug McGraw, was the relief pitcher who helped both the Mets and Phillies win World Series titles.

When Tug died from brain cancer at age 59 in 2004, Tim helped found a charity to honor his father's legacy. The Tug McGraw Foundation helps improve the quality of life for those diagnosed with brain injuries and tumors.

"They give us and the brain tumor community a haven for resources that might not be readily available," says Henry Friedman, MD, deputy director of the Preston Robert Tisch Brain Tumor Center at Duke and special advisor to the foundation.

McGraw serves as the charity's honorary chair. He's seen firsthand how its wellness programs benefit residents at the Veterans Home in Yountville, California. "You see people who come alive because of the interaction and the help they get," he says. "When I get a chance to visit, that really sums it up for me."

Giving back is a central tenet in McGraw's life, fostered in the small Louisiana town where he was raised. "It flooded a lot," he says. "When we would have a flood, my coach would gather up all the guys on the basketball team in the back of his pickup truck and take us to the cotton gin. We'd start putting sand in bags and taking them to communities."

Paying it forward is also his way of saying thanks for the many gifts he's received. "I've been so fortunate in my life," he says. "Everything good in my life has come from country music. I met my wife through it."

He's eternally grateful for his wife and the other women in his life, he says. "I don't think without my mom and my sisters and my wife and daughters that I would see life in the same way," McGraw says. "It's probably made me a more compassionate person than I was ever meant to be and a way more considerate person than I was ever meant to be. They lead me to see the good in everything."

Fame and success have brought McGraw big rewards, but they haven't totally shielded him from life's challenges. "Problems are problems, and everybody has them. ... The water's going to run differently in everyone's creek, and the stumbling blocks or rocks are going to be in different places," he says.

Navigating the joys and successes, the heartaches and pain, has readied him to face the jagged edges he's encountered along the way. "Leaning into life and preparing yourself for that," says McGraw, "in a mental and physical way, is very important."

# TRAIN WITH GRIT & GRACE

## HAVE YOU LET YOUR FITNESS ROUTINE SLIP?

TRY THESE TIPS FROM TIM MCGRAW AND HIS TRAINER, ROGER YUAN, TO HELP YOU GET BACK INTO SHAPE IF YOU'VE BEEN OFF THE EXERCISE WAGON FOR A WHILE.

### COMMIT TO YOUR WORKOUT ROUTINE

When you're tempted to skip days, remember the reason you're putting in the effort and it will give you the drive to keep going.

### MOVE EVERY DAY

Something as simple as a daily walk can set off what McGraw calls a "cascade of changes" that transform both your body and mind.

### JUST BREATHE

Use your diaphragm and expand your rib cage to achieve maximum lung capacity with each breath. Properly oxygenating your body "allows for faster gains from exercise, lessens soreness from lactic acid buildup, helps recovery, and just starts you off in a better mood from the get-go," Yuan says.

### STRETCH

"That's one of the things everybody lets slip," McGraw says. "It's so important to your functionality, being able to stretch and loosen your muscles."

### SLEEP WELL

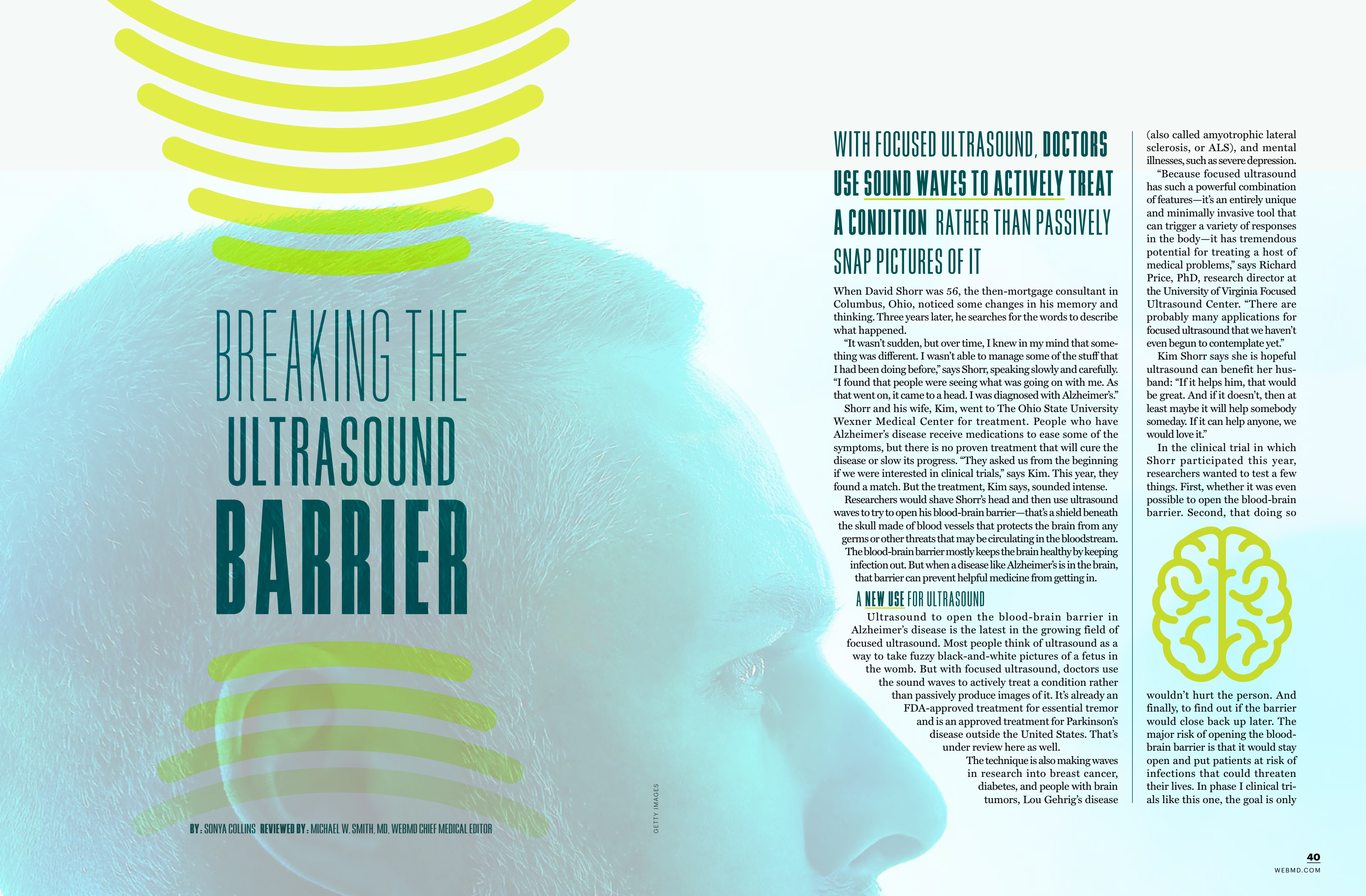
Your body can't perform at its best if you're chronically exhausted. Getting the rest you need and the time to reenergize yourself is what McGraw calls "recharging your battery."



"THE WHOLE  
BUILDUP TO  
THE SHOW  
IS SORT OF  
LIKE GETTING  
READY FOR A  
FOOTBALL  
GAME."

PHOTO COURTESY OF TIM MCGRAW





# BREAKING THE ULTRASOUND BARRIER

BY: SONYA COLLINS REVIEWED BY: MICHAEL W. SMITH, MD, WEBMD CHIEF MEDICAL EDITOR

GETTY IMAGES

## WITH FOCUSED ULTRASOUND, DOCTORS USE SOUND WAVES TO ACTIVELY TREAT A CONDITION RATHER THAN PASSIVELY SNAP PICTURES OF IT

When David Shorr was 56, the then-mortgage consultant in Columbus, Ohio, noticed some changes in his memory and thinking. Three years later, he searches for the words to describe what happened.

“It wasn’t sudden, but over time, I knew in my mind that something was different. I wasn’t able to manage some of the stuff that I had been doing before,” says Shorr, speaking slowly and carefully. “I found that people were seeing what was going on with me. As that went on, it came to a head. I was diagnosed with Alzheimer’s.”

Shorr and his wife, Kim, went to The Ohio State University Wexner Medical Center for treatment. People who have Alzheimer’s disease receive medications to ease some of the symptoms, but there is no proven treatment that will cure the disease or slow its progress. “They asked us from the beginning if we were interested in clinical trials,” says Kim. This year, they found a match. But the treatment, Kim says, sounded intense.

Researchers would shave Shorr’s head and then use ultrasound waves to try to open his blood-brain barrier—that’s a shield beneath the skull made of blood vessels that protects the brain from any germs or other threats that may be circulating in the bloodstream. The blood-brain barrier mostly keeps the brain healthy by keeping infection out. But when a disease like Alzheimer’s is in the brain, that barrier can prevent helpful medicine from getting in.

### A NEW USE FOR ULTRASOUND

Ultrasound to open the blood-brain barrier in Alzheimer’s disease is the latest in the growing field of focused ultrasound. Most people think of ultrasound as a way to take fuzzy black-and-white pictures of a fetus in the womb. But with focused ultrasound, doctors use the sound waves to actively treat a condition rather than passively produce images of it. It’s already an FDA-approved treatment for essential tremor and is an approved treatment for Parkinson’s disease outside the United States. That’s under review here as well.

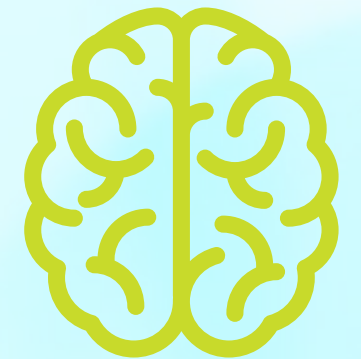
The technique is also making waves in research into breast cancer, diabetes, and people with brain tumors, Lou Gehrig’s disease

(also called amyotrophic lateral sclerosis, or ALS), and mental illnesses, such as severe depression.

“Because focused ultrasound has such a powerful combination of features—it’s an entirely unique and minimally invasive tool that can trigger a variety of responses in the body—it has tremendous potential for treating a host of medical problems,” says Richard Price, PhD, research director at the University of Virginia Focused Ultrasound Center. “There are probably many applications for focused ultrasound that we haven’t even begun to contemplate yet.”

Kim Shorr says she is hopeful ultrasound can benefit her husband: “If it helps him, that would be great. And if it doesn’t, then at least maybe it will help somebody someday. If it can help anyone, we would love it.”

In the clinical trial in which Shorr participated this year, researchers wanted to test a few things. First, whether it was even possible to open the blood-brain barrier. Second, that doing so



wouldn’t hurt the person. And finally, to find out if the barrier would close back up later. The major risk of opening the blood-brain barrier is that it would stay open and put patients at risk of infections that could threaten their lives. In phase I clinical trials like this one, the goal is only

to see if a treatment is safe. It's not expected to cure a person or improve their situation.

Shorr has now had three ultrasound sessions, and his blood-brain barrier closed on its own within hours of each. The same has been true for patients at Sunnybrook Health Sciences Center in Toronto, where researchers were the first in the world to open the blood-brain barrier in a person with Alzheimer's disease.

If the procedure is deemed safe, researchers will move to the next phase—to see if they can deliver medicine straight to the brain once the blood-brain barrier is open and see if that helps treat the disease. The treatment may bring about some positive benefits all on its own, without adding medication to it. "It may be that just opening the blood-brain barrier by itself may permit the body's own immune system to get into the brain and clear some of that amyloid [plaque that builds up in the brain affected by Alzheimer's]," says Nir Lipsman, MD, PhD, a scientist at Sunnybrook Health Sciences Center.

Early experiments at Sunnybrook found that the ultrasound technique alone cut brain plaque—deposits that build up in the brain that are believed to cause memory problems—in mice. Researchers at Sunnybrook, Ohio State, and other hospitals are now seeing if the same will be true in people.

### STEADYING A SHAKY HAND

Rich Powley's hands started to shake when he was 57 years old. His doctor told him he had essential tremor, a neurological disorder that can affect any part of the body but often strikes the hands, especially the dominant hand. It tends to come in older age and can get worse over time. "If a person with this condition wants to grab something, like a coffee cup, as they intensify their focus on grabbing that object, the tremor gets worse and worse," says Price.

Powley's doctor gave him medicine for the tremor, but the side effects—nightmares, extreme drowsiness, weight loss, and always feeling cold—were worse than the tremor, he says. Over the course of 26 years with the tremor, by the time Powley was 83 years old, he could no longer create oil paintings the way he used to. He had to hold the brush with both hands. He had to give up using axes, saws, and power tools on the two-mile stretch of Appalachian Trail he maintains near his home in Free Union, Virginia. He couldn't shave or put sugar in his coffee. He wore a bib when he ate. "I tried not to get depressed," he says. "I tried changing the way I do things. But I had to rely on my wife for a lot of things."

This year, Powley's doctor at University of Virginia Health System asked him if he'd like to try focused ultrasound for the tremor in one of his hands. In this procedure, doctors use MRI to find the

nerve cells in the brain causing the tremor. They then fit the patient with a customized helmet that delivers ultrasound waves to the exact spot causing the problem.

## CLINICAL TRIALS BY THE NUMBERS

Cutting-edge treatments like focused ultrasound are possible only because thousands of volunteers—both sick and well—enroll in clinical trials.

309,909

Number of clinical trials **CURRENTLY REGISTERED** with the National Institutes of Health.

50

**NUMBER OF U.S. STATES** in which clinical trials are happening right now.

210

**NUMBER OF COUNTRIES** in which clinical trials are happening right now.

25,875

Number of current clinical trials **THAT TEST A NEW MEDICAL PROCEDURE**—such as focused ultrasound treatment.

"I CAN EAT MY  
BREAKFAST WITH  
A SPOON,  
WITHOUT A BIB. ...  
I AM **SO HAPPY.**"

The ultrasound waves heat up the tiny bit of culprit brain tissue and destroy it. "You essentially cut the misfiring circuit and restore the patient's ability to use their hand much better," says Price.

Before the neurosurgeons started the treatment on Powley, he had to write his name and draw a spiral on paper. "While I was in the [MRI] machine," Powley says, "they would roll me out every once in a while and give me the sheet of paper and pencil, and I would try to go around in a circle again. That would tell them how well they were doing."

For two hours, they rolled Powley in and out of the machine to check their work until finally everyone was satisfied. "They pulled me out, and I went through the test with the pencil and paper again, and I could write again," says Powley, who is now back to painting. "I can eat my breakfast with a spoon, without a bib. It's just like a normal breakfast, and I am so happy."

While the procedure got rid of the tremor in Powley's right hand, it may not have the same effect on everyone. On average, people get about a 50% improvement in the use of their hands or the area that has the tremor. And like any other medical

procedure, this one comes with risks. Some possible side effects include numbness or tingling in the fingers, headache, and unsteadiness. And there is a chance that the procedure can make it hard to walk or make a person lose control of some body functions, such as speaking or picking things up.

### SENDING UP A FLARE

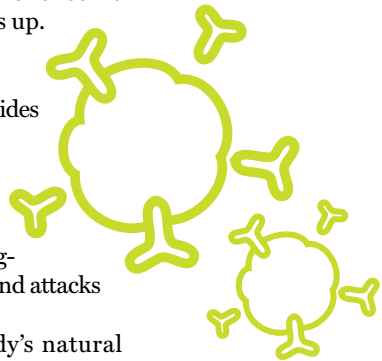
Focused ultrasound waves may be useful in places besides the brain. Researchers at the University of Virginia are using the technology to try to trigger an immune system attack against cancer. Cancer cells have traits that allow them to trick the immune system—the body's built-in defense system. The system recognizes the flu, colds, and other infections as a threat and attacks them. But cancer often manages to sneak by.

New immunotherapy drugs can help the body's natural defense system recognize cancer as a threat. These drugs are working in melanoma, lung cancer, and others. But sometimes, for example in breast cancer, they may not be enough to wake up the immune system. In experiments at the University of Virginia, when a woman starts immunotherapy for breast cancer, she also gets a specialized ultrasound treatment. Doctors use ultrasound waves to destroy a few cancer cells on the surface of the breast tumor. The inflammation can alert the immune system and trigger an attack. "The idea with ultrasound is that the heat stress will cause the immune system to recognize the cancer cells and fight them," says Price.

It's too soon to tell whether the theory will pan out. Women in this trial have very advanced cancer and choose to participate in the study to contribute to research that may help women with breast cancer in the future. "So far," says Price, "we see some really exciting changes in how the tumor is behaving after it gets hit with the focused ultrasound."

Researchers don't believe they have exhausted all possibilities when it comes to ultrasound. In other early experiments—not yet in people but showing good results so far in mice—biomedical engineers at General Electric Global Research in Schenectady, New York, have managed to lower blood sugar by focusing ultrasound waves on nerve cells in the liver that help regulate blood sugar. Researchers at the University of Minnesota reduced inflammation and made arthritis less severe in mice by targeting ultrasound near the spleen. The technology, if proven safe and effective in people, could one day be a noninvasive, nondrug treatment for conditions such as diabetes and arthritis. "We're using the ultrasound to cause a release of [chemical substances] in the body to have a drug-like effect," says Christopher Puleo, PhD, a researcher at General Electric involved in the experiment.

Today, the Shorrs are glad to help lay the groundwork for what might one day cure or vastly improve fatal brain diseases. "It's a lot of appointments, testing, bloodwork, MRIs, and PET scans," says Kim, "but we think it's worth every bit of it. You only stand to help somebody."



GETTY IMAGES



# FOOD FEUD

WHY SCIENCE CAN'T SEEM TO TELL US HOW TO EAT RIGHT

BY THERESA TAMKINS  
REVIEWED BY MICHAEL W.  
SMITH, MD, WEBMD CHIEF  
MEDICAL EDITOR

GETTY IMAGES

Eggs once fell from grace, going from the sunny breakfast staple of choice to a hard pass if you wanted to avoid heart attacks. Then, like all disgraced celebrities, they seemed to make a comeback in the 2015 Dietary Guidelines for Americans. Health experts said we could stop worrying about the cholesterol or eating too many eggs. (Brunch never looked so fantastic.)

Then, earlier this year, a study seemed to say, “Hold up!”—cholesterol in your diet and eating eggs was linked to a higher heart risk.

Instead of screams of frustration, though, the news was met with a collective sigh of boredom. Because, to be honest, there’s a long list of foods, diets, and ingredients—coconut oil, butter, avocados, low-fat foods, salt, nuts, saturated fat, and sugar—that seem to have gone through the same good guy-bad guy cycle.

It’s understandable if you yawned, looked at your fitness-tracker watch, and asked, “Remind me, where are we in the cycle on this one?” just before digging into your plate of scrambled eggs. So who is to blame for the average person’s jaded palate when it comes to foods that supposedly are or are not “healthy”?

Like many things food-related, it depends on whom you ask. Some blame the science, which, you might

have guessed, has some problems. (More on that later.) Others say it’s the media. And people who stand to profit—namely, the food industry as well as nutrition “gurus” hawking diet books and products—also add to the messages.

**HERE’S WHY IT’S KIND OF YOUR FAULT, TOO**

Americans have a glorious variety when it comes to living life, eating different foods, cooking them in different ways, and making thousands of decisions every day. These can all affect the long-term risk of things like heart disease and diabetes, which makes it pretty hard to study the connection between diet and chronic disease.

But scientists, always up for a challenge, do it anyway. For decades, the Dietary Guidelines for Americans and other advisory groups have relied on observational research, which includes

studies that look at what people in the real world eat and how they fare health-wise. In those studies, people filled out questionnaires about how often they ate certain foods in the past year. For example, NHANES, or the National Health and Nutrition Examination Survey, has been conducted since the 1960s and contains more than 100 questions, such as “How often did you drink coffee?” or “How often did you eat mixed vegetables?” Answers include “never” and “two to three times per month.”

But some critics say this type of research is unreliable to the point of being useless—people barely remember what they ate for breakfast, much less how many times a



GETTY IMAGES

**54%**

PERCENTAGE OF AMERICANS WHO SAY PEOPLE IN THE U.S. PAY MORE ATTENTION TO EATING HEALTHY FOODS TODAY COMPARED TO 20 YEARS AGO.

**25%**

PERCENTAGE OF AMERICANS WHO SAY THEY FEEL OVERWHELMED BY THE INCONSISTENT FINDINGS IN FOOD RESEARCH STUDIES.

**80%**

PERCENTAGE OF AMERICANS WHO SAY THERE IS A LOT OF CONFLICTING INFORMATION ABOUT WHAT FOODS THEY SHOULD EAT OR AVOID.

**87%**

PERCENTAGE OF AMERICANS WHO EAT LESS THAN THE RECOMMENDED AMOUNT OF VEGETABLES DAILY.

**73%**

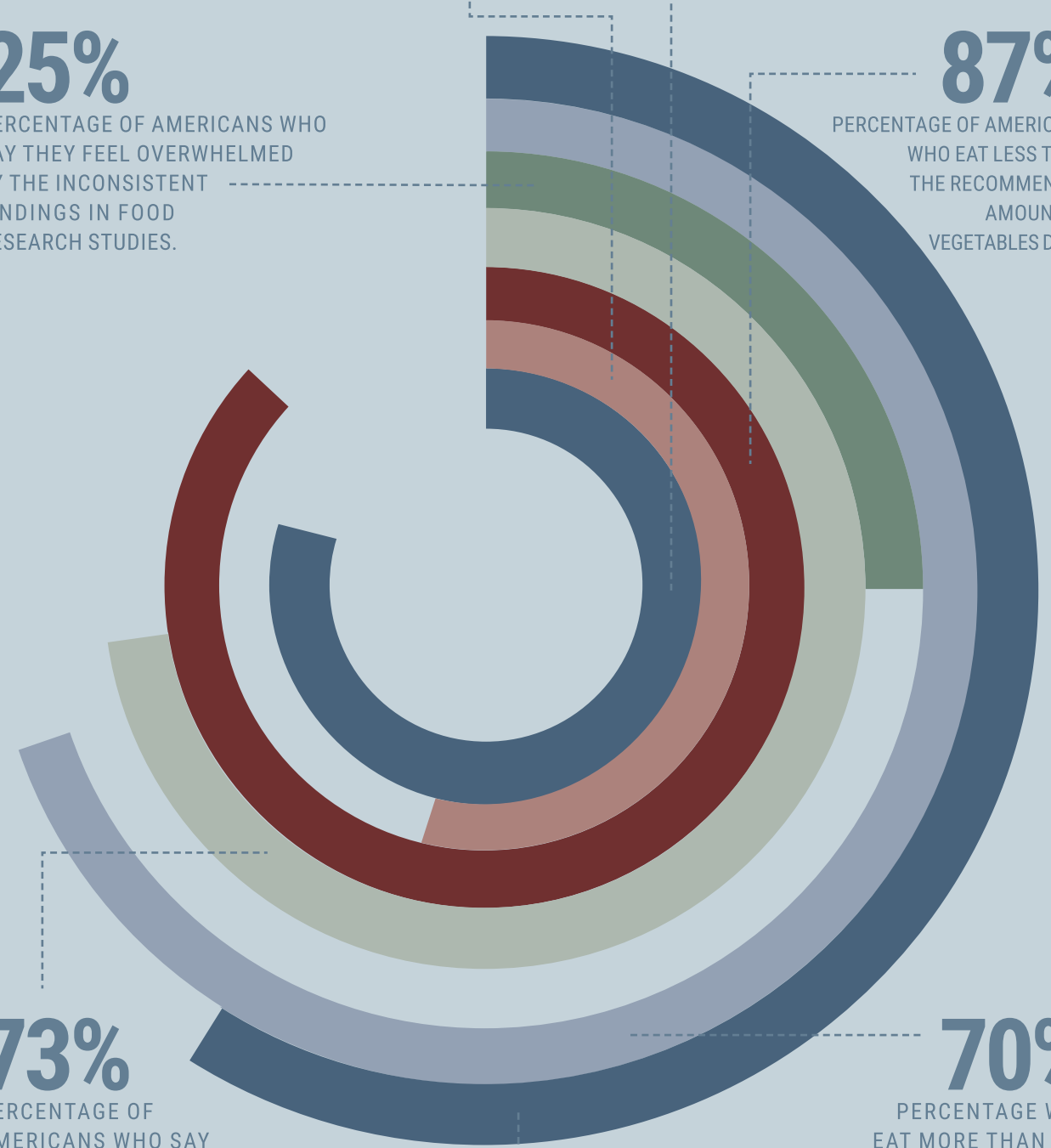
PERCENTAGE OF AMERICANS WHO SAY THEY ARE VERY OR FAIRLY FOCUSED ON HEALTHY EATING.

**70%**

PERCENTAGE WHO EAT MORE THAN THE RECOMMEND AMOUNT OF ADDED SUGARS DAILY.

**59%**

PERCENTAGE WHO SAY THAT CONFLICTING INFORMATION MAKES THEM DOUBT THE CHOICES THEY MAKE.



week they ate broccoli last January. Plus, people tend to fudge a bit to make themselves look better.

In his research published in 2013 and 2015, Edward Archer, PhD, analyzed more than 60,000 people in the NHANES databases. He found that the number of calories people said they ate were not enough to actually keep them alive.

“The dietary data that food frequency questionnaires collect is physiologically implausible, about 65% to 85%, meaning it cannot be right,” says Archer, who did the research at the University of Alabama in Birmingham and is now the chief science officer at EnduringFX, a company that analyzes data from wearable devices.

“We have this data that is just ridiculous. If people can’t survive on it, why is the dietary guidelines advisory committee using it as a baseline for our dietary guidelines?” he asks. “Everyone agrees that NHANES is a joke, but the federal government continues to use it.” (Archer’s early studies as a graduate student took place in a lab where his research assistant salary was funded by Coca-Cola, but he says he has been self-funded since 2016.)

John Ioannidis, MD, a professor at Stanford University, has argued for years that the vast majority of nutrition research is flawed to the point of being false. He says results from observational studies are often not confirmed in placebo-controlled, randomized trials, which are the gold standard when it comes to finding out if something is scientifically sound. He also says researchers cherry-pick data to support their own biases; there are too many small, low-quality trials published; and a lot of nutrition-related research is compromised by strong financial ties to the food industry.

What’s more, many one-ingredient claims—like a study that seems to suggest that one hazelnut a day will increase your lifespan by a year—just don’t sound credible. “I love hazelnuts, and I do recommend that you eat more of them, but I don’t do it because I expect to live 120 years if I eat that many hazelnuts every day,” he said at a conference in 2018.

In a statement, the U.S. Department of Agriculture, which publishes the Dietary Guidelines, says it includes “study designs that offer the strongest evidence for establishing a relationship between diet and health.”

“When it comes to minimizing public confusion, we encourage the public to not read too much into individual studies and not to change their eating behaviors based on one study,” a USDA spokesperson said. “Instead, we encourage the public to follow the key recommendations of the Dietary Guidelines since they are based on the body of scientific evidence over time and are a reliable source for consumers and practitioners.”

#### SO WHAT DOES SCIENCE REALLY KNOW ABOUT FOOD?

Not all of the recommendations for healthy eating rely on observational studies, and scientists take a variety of studies into account when coming up with general guidelines, says Bonnie F. Liebman, director of nutrition at the Center for Science in the Public Interest in Washington, D.C. “The dietary guides are based on a combination of those observational studies and randomized controlled trials,” she says.

In randomized trials, scientists assign people to one group or another and follow them for a specific period of time to see which treatment (or food) is better for you. These types of trials are hard to do for food—you can’t ask people to eat only, say, hot dogs for weeks, months, or years at time. But some research does look at

whether some eating habits are linked to a lower blood pressure, cholesterol, or other things that are associated with chronic disease. These are considered acceptable in cases where you can’t follow people over a lifetime.

“Some critics don’t really understand the science or have misinterpreted the science. But if you rely on the American Heart Association, the World Health Organization, the American Cancer Society, you’ll find a pretty consistent message,” Liebman says.

Marion Nestle, a retired professor of nutrition, food studies, and public health at New York University, says the dietary advice hasn’t changed all that much in decades. “Eat vegetables; don’t eat too much salt, sugar, and saturated fat; watch your body weight; and don’t eat too much junk food. I mean, that hasn’t changed since 1960,” she says. “What seems to change is research about individual nutrients and individual foods, but that’s not how people eat.”

THERE’S A  
LONG LIST  
OF FOODS,  
DIETS, AND  
INGREDIENTS  
THAT SEEM  
TO HAVE GONE  
THROUGH THE  
SAME GOOD  
GUY-BAD  
GUY CYCLE.

News stories about this research may not disclose the funding source, size, or quality of the study, or explain how it fits in with other research. And some journalists may rely on university or medical journal news releases that overhype or don’t tell the whole story about a study’s findings, Liebman and Nestle say.

Liebman says conflicting headlines take attention away from our constant exposure to “a toxic food environment.” Eating habits are more heavily influenced by the 24/7 exposure to unhealthy food at malls, gas stations, and fast-food restaurants, she says, than any federal government guidelines.

Industry-funded research is a problem and has been for decades, says Nestle, who has written multiple books on the subject, including one called *Unsavory Truth*. It “almost invariably comes out with results that the funder can use in marketing or in stating that their products are harmless or healthy,” she says.

“I get letters all the time from the yogurt industry, the grape industry, the pecan industry. You name the food, and they send out letters saying we have \$30,000 to \$50,000—usually that’s the range—and we are looking for studies that will demonstrate the benefits of our products,” says Nestle. “This isn’t basic science.”

For example, a 2016 analysis of historical documents found that the sugar industry, specifically a group called the Sugar Research Foundation, paid for research in the 1960s and 1970s that emphasized fat over sugar as the cause of heart disease. And a 2015 study of 14 overweight, postmenopausal women suggesting that a cheese- and meat-heavy diet was better for HDL, or “good cholesterol,” than a low-fat, high-carbohydrate diet was funded by dairy industry groups.

But P. Courtney Gainey, PhD, president and CEO of The Sugar Association in Washington, D.C., says that while there might be a “few bad apples that spoil the bunch,” food nutrition research is getting more, not less, transparent about funding.

“Industry scientists want the population to be healthy, too, and there are a lot of really good scientists,” she says. “I think people should not throw the baby out with the bathwater—if it’s a good study, it’s a good study.”

“Industry-funded research for a variety of well-known reasons has gotten a bad rap,” says Marc Dresner, manager of marketing and communications at the American Egg Board. “All of the research that is conducted with funding from us is conducted by top institutions, universities, around the country, and we feel that the quality of the research that we have funded is second to none.”

#### CUT THROUGH THE NOISE

Nestle recommends that people “be skeptical” when it comes to new studies or findings. “If they see studies that say it’s a breakthrough, it’s a miracle, it will cure more than one disease, it will take care of everything that ails you, you should be really suspicious,” she says. “Especially if it says everything you thought you knew about nutrition is wrong. That’s not how science works.”

As for those eggs, Nestle says it “makes no sense” to call a food good or bad, and it’s all about the context and your overall diet. In fact, it might be better to focus on what we know are healthy eating patterns, rather than a specific food.

As for that new study about eggs that sent some people into a tailspin? The study was large, well-conducted, and funded by

the American Heart Association, the National Institutes of Health, and other non-food industry sources and was published in *JAMA*, a well-respected medical journal. But it was also observational—meaning it couldn’t tell for sure if eggs were the cause of heart trouble, only that they were linked to it. “That may have nothing whatsoever to do with eggs and everything to do with what kind of lifestyle people have who typically report eating eggs,” Nestle says.

Some randomized trials have indeed found that eating more eggs can raise LDL or “bad” cholesterol in the blood to some degree, with more—as in three or four eggs a day—being worse than one or fewer per day, but the effect can also vary from person to person. And the 2015 Guidelines for Americans did not give dietary cholesterol a free pass, which is a message that may have been lost if you were reading only the headlines. The guidelines say it’s important to “eat as little dietary cholesterol as possible while consuming a healthy eating pattern.”

“You are not going to die if you eat an egg,” Nestle says. “For a lot of people, eating a lot of eggs is going to raise their blood cholesterol and raise their heart disease risk, and that’s not going to be good ... but that doesn’t mean you can’t eat eggs.”

One finding in nutrition research that does seem certain: It’s a good idea to eat veggies. “People who eat vegetables are healthier than people who don’t. There’s incontrovertible evidence for that,” she says.



GETTY IMAGES



GOOD FOR YOU

# Merry Berry

VISIT YOUR SUPERMARKET NOW TO CATCH FRESH CRANBERRIES BEFORE THEY DISAPPEAR. ALONG WITH TART FLAVOR, THESE SCARLET SUPER FOODS PACK A NUTRITIONAL PUNCH.

**THINK BEYOND THAT CYLINDER OF RED GEL COAXED OUT OF A CAN. WHOLE CRANBERRIES ROCK.** A cup of raw cranberries offers 18% of an adult's daily value of fiber, as well as 22% of the daily value of vitamin C (a boon for the immune system and skin). Cranberries also contain antioxidant flavonoids and anthocyanins, shown in preliminary studies to quell inflammation and decrease the free radical damage that can lead to cancer. To counter their tartness without added sugar, combine cranberries with sweet fruits such as apples. Add cranberries to apple crisp, toss them raw or dried in salads, and make this a can-free holiday: Combine cranberries, orange juice and zest, and honey and simmer for 20 minutes for quick cranberry sauce. —ERIN O'DONNELL

3 WAYS

# Salmon

MAKE THIS YEAR'S HOLIDAY FEAST BOTH DELICIOUS AND HEART-HEALTHY WITH ONE OF THESE SUCCULENT CENTERPIECE DISHES

BY Erin O'Donnell

RECIPES BY Kathleen Zelman, MPH, RD, LD

## THE MIX

4 6-OZ SALMON FILETS + AVOCADO, RED SWEET PEPPER, SMALL YELLOW TOMATOES, FRESH CILANTRO, LIME JUICE, SHALLOT, OLIVE OIL, BROWN SUGAR, CUMIN, CHILI POWDER, CAYENNE PEPPER

## VEGGIE-PACKED

### Sweet-Spicy Salmon with Avocado Salsa

This option includes a fresh, flavorful salsa and offers two ways to cook the salmon: "grilling" it in a griddle pan on the stove or placing it under the broiler. (The oven rack should be positioned 8 inches below the broiler.)

## MAKE IT

In a small bowl, combine a diced avocado, a chopped red pepper, 1 cup halved tomatoes, 3 tbsp chopped cilantro, 2 tbsp lime juice, 1 tbsp minced shallot, and salt and pepper to taste; set aside. Heat a sprayed griddle pan to medium-high heat or preheat oven to broil. Rub salmon with olive oil. Combine 1 tbsp brown sugar, 1 tsp cumin, ½ tsp chili powder, ¼ tsp cayenne pepper, and a pinch of salt and pepper. Rub filets with spice mixture. Grill salmon 6 to 8 minutes, turning once halfway through grilling, or broil 8 to 10 minutes or until salmon reaches 145°F. Serve fish topped with salsa and garnish with cilantro. **SERVES 4**

## PER SERVING (1 FILET AND ½ CUP SALSA)

457 calories, 36 g protein, 10 g carbohydrate, 30 g fat (6 g saturated fat), 92 mg cholesterol, 3 g fiber, 5 g sugar, 399 mg sodium. Calories from fat: 58%

Continued from page 50

**THE MIX**

46-OZ SALMON FILETS  
+ DIJON MUSTARD,  
HONEY, WHOLE-GRAIN  
PANKO BREAD CRUMBS,  
FRESH PARSLEY,  
CHOPPED PECANS,  
OLIVE OIL

**CRUNCH TIME****Nut-Crusted Salmon**

This version combines whole-grain panko bread crumbs (found at large supermarkets) and chopped nuts for a satisfying crunch. We use pecans here, but you can try walnuts, pistachios, or another favorite nut.

**MAKE IT**

Preheat oven to 425°F. Season salmon filets with sea salt and freshly ground black pepper.

Place fish skin-side down on a baking sheet lined with aluminum foil.

In a small bowl, combine 1 tbsp each of Dijon mustard and honey and brush over filets. Combine 3 tbsp panko and 1 tbsp chopped parsley and sprinkle over salmon. Press a small handful of chopped pecans onto each filet to make a crust. Drizzle fish with olive oil and bake 10 to 15 minutes, or until an instant-read thermometer registers 145°F. Serve with fresh lemon wedges. **SERVES 4**

**PER SERVING (1 FILET)** 433 calories, 36 g protein, 8 g carbohydrate, 28 g fat (6 g saturated fat), 92 mg cholesterol, 2 g fiber, 5 g sugar, 290 mg sodium. Calories from fat: 58%

**THE MIX**

46-OZ SALMON FILETS +  
LIGHT MAYONNAISE, NONFAT  
GREEK YOGURT, JALAPEÑO,  
LIME JUICE, RED ONION,  
BOTTLED TERIYAKI SAUCE,  
BROWN SUGAR, SNOW PEAS,  
SESAME SEEDS

**ASIAN-INSPIRED****Teriyaki-Glazed Salmon**

This recipe uses bottled teriyaki sauce for ease. Cooking the salmon under the broiler browns it and makes it delectably crisp on top.

**MAKE IT**

In a small food processor, combine ¼ cup each of mayonnaise and yogurt; a chopped, seeded jalapeño; the juice of one lime; 1 tbsp chopped red onion; and a dash of sea salt. Process until smooth and set aside. Place oven rack 8 inches from heat element and preheat to broil. Place salmon, skin-side down, on a foil-lined baking sheet. Combine 1 tbsp each of teriyaki sauce and brown sugar and spread over salmon. Broil 8 to 10 minutes, or until salmon is browned and an instant-read thermometer registers 145°F. Glaze salmon with a little more teriyaki sauce and drizzle with cream sauce. Garnish with snow peas and sesame seeds. **SERVES 4**

**PER SERVING (1 FILET)** 453 calories, 37 g protein, 9 g carbohydrate, 29 g fat (6 g saturated fat), 97 mg cholesterol, 0 g fiber, 7 g sugar, 450 mg sodium. Calories from fat: 57%





Sign up for the **Food & Fitness**  
Newsletter at [WebMD.com](http://WebMD.com).



### BUILD A BETTER

# Roast Turkey

THE CENTERPIECE OF SO MANY THANKSGIVING TABLES, ROAST TURKEY CAN BE YOUR HOLIDAY STANDOUT

BY Matt McMillen

REVIEWED BY Neha Pathak, MD, WebMD Medical Editor

**KYLE BAILEY, CHEF OF THE SALT LINE IN WASHINGTON, D.C., LOVES ROASTING BIG TURKEYS DURING THE HOLIDAYS.** “Its flavor is super special, it’s fun to cook with the family, and carrying it to the table is so impressive,” says Bailey, a 2011 winner of *Food & Wine* magazine’s People’s Best New Chef. Here, he breaks down the steps to prepping a beautiful bird for your holiday crowd.

### MAKE IT

- For the freshest, tastiest turkey, order through a local farm, farmers market, or butcher shop if you can. At the supermarket, look for organic turkey.
- For a juicier, more flavorful turkey, consider a 24- to 48-hour brine. Use a sanitized bucket large enough to fit the turkey but small enough to fit in your fridge.
- Bring your turkey to room temperature before roasting.
- Rub butter between the turkey’s skin and breast to help flavor the meat and keep it moist as it cooks.
- No need for a roasting rack. Make a bed of carrots, onions, and celery in your roasting pan and set the turkey on it.
- Cook your stuffing separately and fill the turkey’s cavity with flavor-enhancing ingredients, such as lemons and whole garlic cloves and fresh herbs like sage, rosemary, and thyme.
- Truss your turkey so that it cooks evenly. Search your favorite food websites for how-to videos.
- Keep your oven temp steady. A 325°F setting works well in a convection oven. If you have a conventional oven, set it to 375°F.
- If the juices run clear when you pierce the turkey’s inner thigh, it’s done. However, play it safe: Use a thermometer to be sure it has reached 165°F. Test the inner thigh and wing and the thickest part of the breast.
- Out of the oven, let the turkey rest at least 20 minutes in a spot with no drafts to dry it out, such as a large microwave oven.

PHOTOGRAPHY: RICK LOZIER; FOOD STYLING: CHARLIE WORTHINGTON

FOOD 101

# Cheese, Please

FIRM, SOFT, MILD, PUNGENT, SWEET: PREP THE PERFECT CHEESE BOARD WITH A CHEESE FOR EVERY PALATE, PAIRING, AND OCCASION

BY Matt McMillen

REVIEWED BY Hansa Bhargava, MD, WebMD Senior Medical Editor

FOR STEVE JONES, CHEESEMAKING RESEMBLES ALCHEMY. “You take basically three ingredients and make a thousand different kinds of cheese,” says Jones, owner of Cheese Bar and the sushi bar-like Chizu, both in Portland, Oregon. “From simple ingredients come very complex flavors.” Here, he offers a selection of five of his favorites.

### GOAT GOUDA

“Domestic or Dutch, these dense, tangy goat’s milk cheeses taste of the tropics with hints of coconut and lime. Both beer-friendly and a nice partner for rosé, eat this one with fresh berries.”

### MANCHEGO

“Made from sheep’s milk, it’s rich, nutty, sweet, and toothsome. Classically served alongside cured chorizo sausage, it also tastes great with cherries and quince. Accompany it with sherry or a Spanish red.”

### STILTON

“An English blue cow’s milk cheese, it’s earthy, savory, an umami bomb that won’t shock your tongue. Try it with toasted walnuts, figs, and dates. To drink: port, barley wine, or barrel-aged beer.”

### CAMEMBERT

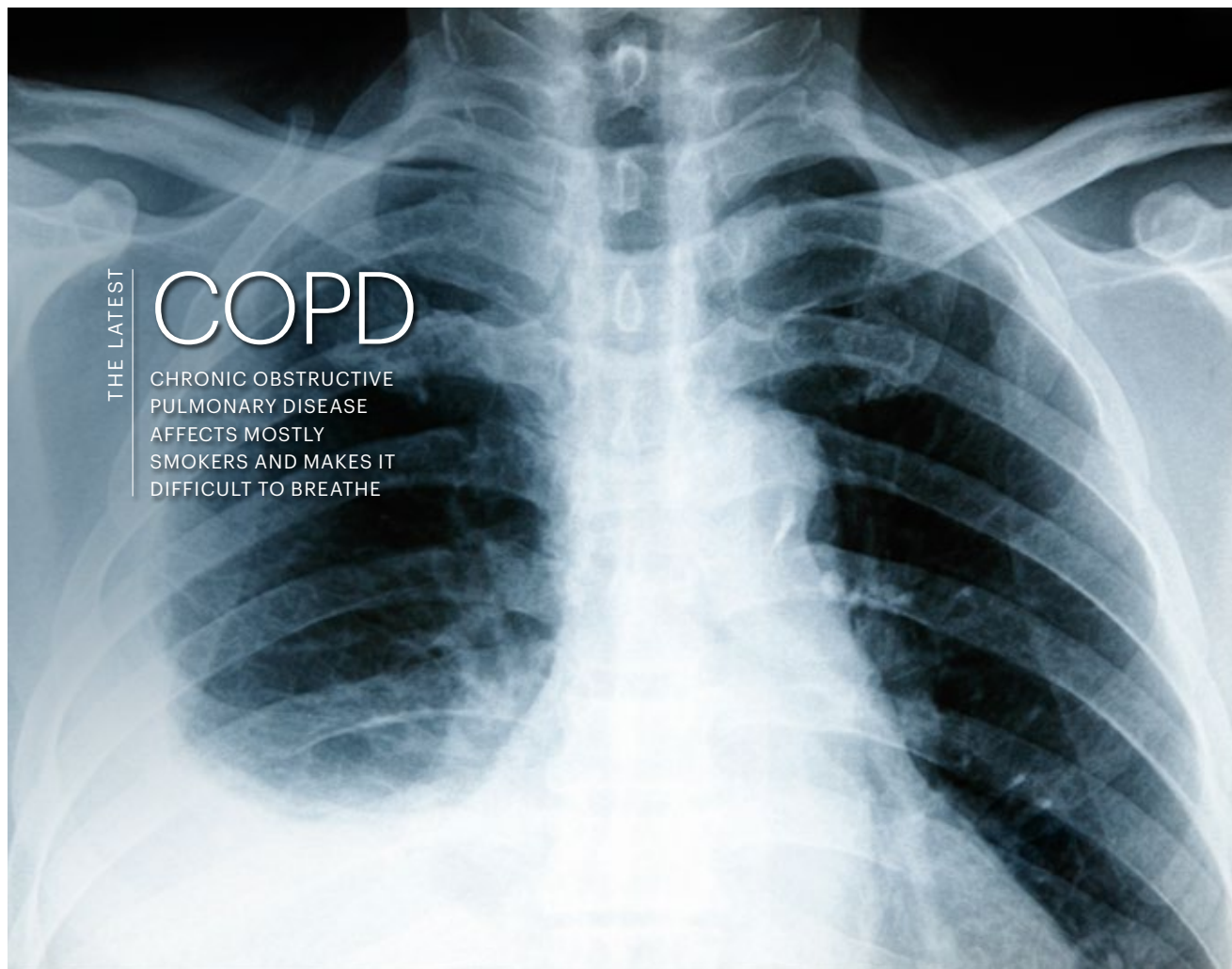
“Ooey, gooey, and really approachable for a party. Serve this cow’s milk cheese on a cheese board with slices of apple and baguettes and pair it with funky beers and ciders.”

### ROBIOLA

“A creamy, sweet, and yeasty Italian blend of milk from cows, sheep, and goats, it’s best served lightly warmed with tomato jam or figs alongside a red wine from Italy’s Piedmont region.”

PHOTOGRAPHY: RICK LOZIER;  
FOOD STYLING: CHARLIE WORTHINGTON

Search for the slideshow  
Say Cheese at WebMD.com.



**WHILE THERE'S NO CURE FOR COPD, MEDICATIONS CAN HELP YOU BREATHE AND PREVENT FLARE-UPS.** But it's a doctor's guess as to which drug will work best. Researchers at the University of Illinois at Chicago, however, think doctors can do better than guess. For their study, they will monitor the health of 3,000 people with COPD for three years while they take an anti-inflammatory or an antibiotic. They hope to learn whether one works better overall and whether one is better for people based on their age, gender, and general health. With this knowledge, doctors could prescribe the right drug the first time so people could get relief faster.

Some people with COPD need an inhaled steroid every day to help them breathe. But because not everyone needs this type of inhaler, it's often not the first treatment that doctors try. Maybe that should change. In a study

of 39,676 adults with COPD at the University of British Columbia, those who used a steroid inhaler were 30% less likely to develop lung cancer over a 10-year period than those who didn't. COPD is a risk factor for lung cancer. One in 100 people with COPD get a lung cancer diagnosis every year.

COPD flares often land a person in the emergency room. When researchers at Cleveland Clinic connected patients' inhalers to their smartphones, ER visits fell. In a small study, half the people got an electronic sensor that sent data about their inhaler usage through their phone to their doctor. Doctors could then see whether patients were using their inhalers correctly and, if not, offer real-time advice rather than wait for the next appointment. After a year, those who had the "smart" inhalers had cut their ER visits by more than one per year. —SONYA COLLINS

# Caregiver Advocate

CAROL LEVINE: PART SUPERHERO, PART POLICY WONK, SHE'S THE WOMAN CAREGIVERS CALL UPON TO HELP SAVE THE DAY

BY Lauren Paige Kennedy

REVIEWED BY Brunilda Nazario, MD, WebMD Senior Medical Editor

Search for the article **Caregiving Support: Is It Time to Get Help?** at [WebMD.com](http://WebMD.com).



WHEN CAROL LEVINE, NOW 84, STEPPED DOWN AFTER 23 YEARS OF SERVICE FROM HER ROLE AS DIRECTOR OF THE FAMILIES AND HEALTHCARE PROJECT FOR THE UNITED HOSPITAL FUND (UHF), her colleagues threw a big party for her and four fellow retirees.

"They created this picture where they superimposed our heads onto action hero bodies," Levine says with a laugh. "If only I had that costume years ago when I first became an advocate for my husband. Caregivers need an action hero costume to make them feel like they have some power."

Levine is being modest. That's because she's every bit a wonder woman for the 43.5 million American men, women, and children who currently care for a sick or disabled family member, usually without pay and proper training and often without additional emotional or financial support.

She's walked in their shoes, which fuels her drive for change. Back in 1990, Levine's husband lost control of their car on an icy road. While she was unhurt, he suffered a severe brain injury that left him disabled and requiring 24-hour care—care that became Levine's responsibility until his death in 2007. "I was basically told, 'He's yours now,'" she says.

With a widely renowned background in AIDs policy and ethics work, Levine set out to better the caregiving landscape when she joined the UHF in 1996, understanding firsthand how bewildering, isolating, depressing, exhausting, and financially stressful the role of caregiver can be.

Today, the caregiving community cheers on Levine

and her UHF team for raising awareness and spurring change in and out of Washington. The team produces actionable and accessible online tools to educate and assist family caregivers and applies continued pressure to forward progress—and financial support—for caregivers of every age and economic background all across the country.

**Q WebMD honored you in 2007 as one of our Health Heroes. In the dozen years since, you've implemented the Next Step in Care website as a comprehensive resource for caregivers. How does it work?**

**LEVINE** The website, launched in 2009, offers an extensive suite of family caregiver guides covering hospital and homecare concerns, plus a parallel set of guides for providers. The family caregiver guides come in four languages—English, Spanish, Chinese, and Russian—which is unusual for most caregiving websites. The UHF site is now being updated, and there are discussions about how to integrate Next Step in Care. It may look different in another year, but it will be there, and it's available.

I'm very proud of it. I'm also proud that we engaged a health literacy expert to keep the language as simple as possible. In health care, the concepts are not simple. We tried to make it simple to understand.

**Q Describe your partnership with AARP.**

**LEVINE** UHF held a conference about why the

## BY THE NUMBERS

34.2 MILLION

Number of Americans who have provided unpaid care to an adult age 50 or older in the last 12 months.

82%

Percentage of caregivers who care for one other adult; 15% care for two adults, and 3% care for three or more adults.

\$470 BILLION

Last valued in 2013, this figure represents unpaid caregiving, exceeding the value of paid home care and total Medicaid spending in the same year—and nearly matching the value of the sales of the world's largest company: Wal-Mart (\$477 billion).

65% FEMALE

Percentage of caregivers who are female (average age: 69.4). The younger the care recipient, the more likely the recipient is to be male; 45% of recipients aged 18–45 are male, while 33% of recipients aged 50 or higher are male.

definition of caregiving doesn't reflect what people are doing on the medical side of things. This led to AARP and UHF developing a national survey of family caregivers called Home Alone. It documented in 2012, for the first time, the extent of medical nursing tasks and the complicated roles family caregivers assume to provide such care. AARP then created the Home Alone Alliance of like-minded organizations, and we produced a series of caregiver instructional videos, which is an ongoing project.

Caregiving is not just making chicken soup and fluffing pillows. It's heavy-duty medical stuff for many people. The survey was updated and re-released in April 2019. We call it Home Alone Revisited. This time we included more on tasks that are not considered difficult but are hard to do. Incontinence was high on the list, as was special diets.

**Q How has the health care landscape for caregivers changed in recent years?**

**LEVINE** Transitions out of hospitals were not such a big deal in 2007. Now, with penalties for readmission, people who study this recognize a transition is more than leaving a hospital's doors and getting into a car or ambulance. It's what happens next that really matters.

To date, the CARE Act is law in 41 states and territories and is being considered in others. This law requires hospitals to ask an admitted patient if he or she wishes to name a family caregiver before discharge. The caregiver can then be involved in discharge planning, have a say in what needs to be done, and be given instruction on the tasks that are needed at home.

It's a new law, and it's a step in recognizing the importance of the

family caregiver in planning for a longer-term recovery now that hospital stays are so short and people are sent home with so many things not yet resolved.

**Q With an aging population, what are the challenges going forward?**

**LEVINE** There are 43.5 million family caregivers. That includes people doing highly demanding tasks as well as people doing less. What's different in 2019 is that there are fewer family caregivers per person. In 2007, there were two kids in the family taking care of mom and dad. Now there is only one, or none. People are living longer, with much more complex, chronic conditions and multiple medications. Care for such a person is by definition more difficult.

And our health care system is fragmented. You might have four conditions, with four doctors or more, who don't necessarily communicate with each other. So being a care coordinator is part of the job. Also, nursing homes are closing because people want to be in their own homes. Being home is nice. But home is not always a good place when you're old and very sick.

**Q You haven't truly retired, have you?**

**LEVINE** I'm as busy as ever. I've been given a new title at UHF. I'm now a senior fellow, which means I'm still part of projects but not a paid staff member anymore. It's nice because it gives UHF, and me, some continuity without real obligation on anyone's part. I have three grown kids and five grandchildren. Being productive, feeling like what I'm doing makes a difference—that's what I want to do.



# Make the Connection

WHAT YOU NEED TO KNOW ABOUT TYPE 2 DIABETES AND HEART DISEASE

BY Matt McMillen  
REVIEWED BY Brunilda Nazario, MD, WebMD Senior Medical Editor

**TYPE 2 DIABETES RAISES YOUR ODDS OF DEVELOPING HEART DISEASE, AS DOES PREDIABETES.** If you've been diagnosed with either, start paying attention to your heart health now.

"You don't need to have diabetes before you get heart disease," says endocrinologist Matthew Freeby, MD, an assistant clinical professor of medicine and director of the Gonda Diabetes Center at the David Geffen UCLA School of Medicine. "We know there's a higher risk of heart disease in people with prediabetes."

Prediabetes occurs when your body can no longer keep your blood sugar level within a normal range. Unchecked, over time it may rise high enough to warrant a diagnosis of diabetes. Elevated blood sugar, in both prediabetes and diabetes, can harm your blood vessels and the nerves that keep your heart and blood vessels functioning properly. Over time, this can cause heart disease.

But, says Freeby, that's only part of the picture. Most people diagnosed with prediabetes or diabetes also have other conditions that threaten the heart: high blood pressure, high cholesterol, and obesity. Such health problems, collectively known as metabolic syndrome, boost the likelihood of blood clots as well as damage to the arteries in your heart. "Managing the risk of heart attack and stroke is less about managing diabetes than it is about reducing the risk factors that go along with diabetes," says Freeby.

Both diabetes and heart disease may lead to heart failure, which may weaken your heart and prevent it from functioning properly. It's one of the earliest and most serious as well as the

most common heart problem with diabetes. Diabetes often worsens heart failure, while heart failure can complicate your diabetes treatment.

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

Fortunately, you have your own tools to protect your heart. Reduce your risk of heart disease—and diabetes if you have prediabetes—by modifying your lifestyle in ways that will improve your overall health. It may not be easy, but you don't have to make dramatic changes overnight. Some areas to focus on:

## SLIM DOWN

Excess weight burdens your heart. To shed pounds, start with small, attainable goals. "You don't need to set a lofty goal for weight loss" says Freeby. "That 5 or 10 pounds you do lose will have a big, positive effect."

## GET MOVING

Exercise will help keep your heart healthy. Don't aim to do too much too soon or you'll risk injury. Focus, instead, on simply getting started. "Find an activity that you like to do that won't cause you pain and that will keep you coming back day after day," Freeby says.

## EAT RIGHT

Go easy on your favorite foods, especially processed foods and simple sugar treats. Discuss your daily meals with a dietitian and understand you aren't alone. "Every person is different," says Freeby, "but we all struggle to make dietary modifications."

## GET SCREENED

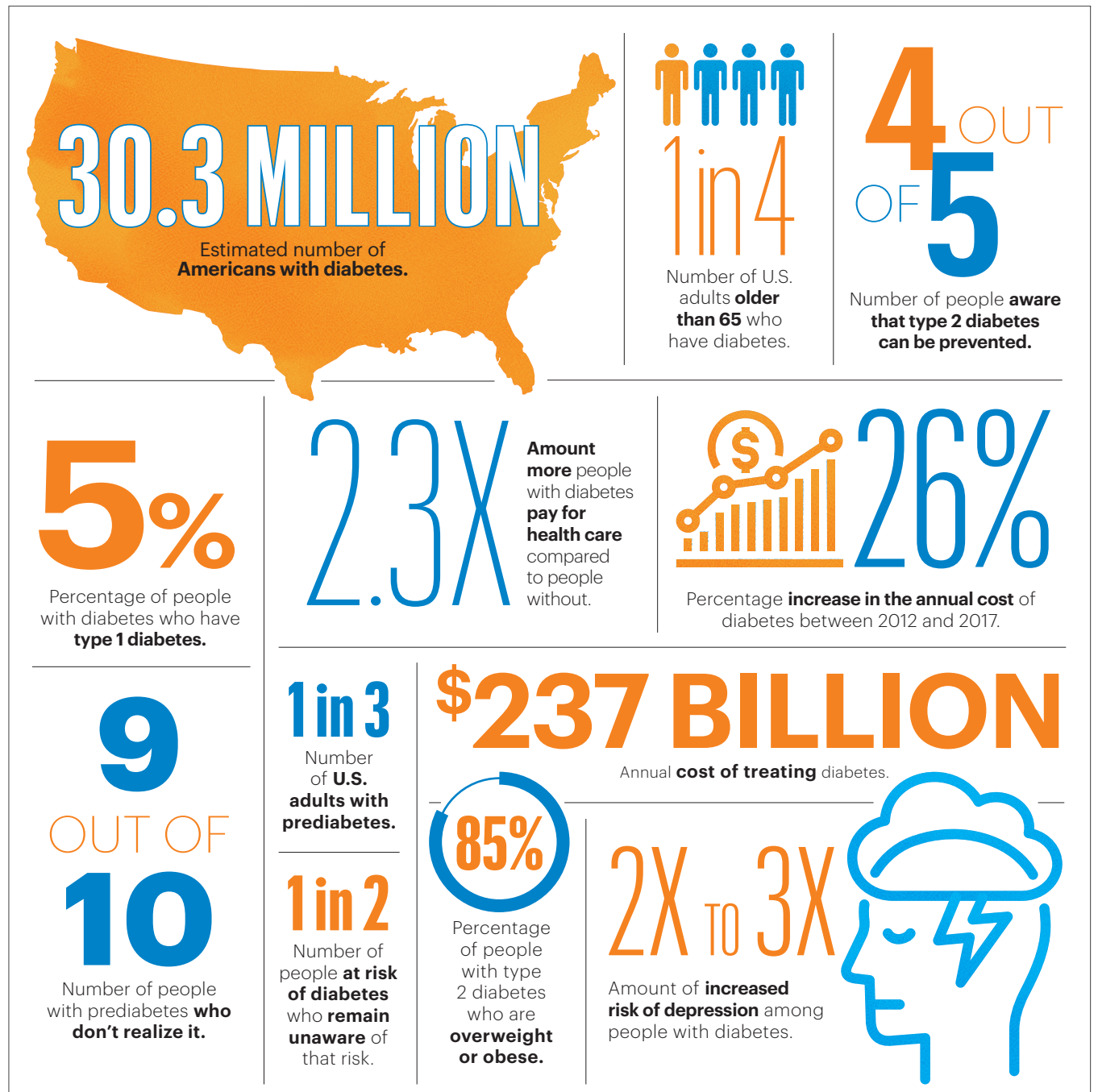
Freeby recommends regular screening for diabetes. Early diagnosis can modify the course of diabetes-related complications.

## CARE FOR YOURSELF

"To help manage diabetes risk or the disease if you have it, try relaxation techniques to reduce stress, get a good night's sleep, and maintain an active social life," says Freeby.

# Diabetes

BY Matt McMillen REVIEWED BY Brunilda Nazario, MD, WebMD Senior Medical Editor



AMERICAN DIABETES ASSOCIATION, CDC, DIABETES RESEARCH AND CLINICAL PRACTICE, THE NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

SPOTLIGHT

# Precise and Personal

HOW PERSONALIZED MEDICINE CAN IMPROVE YOUR CARE



BY John Whyte, MD, MPH,  
WebMD Chief Medical Officer

**WE ALL WANT OUR MEDICAL CARE TO BE SPECIFIC TO OUR NEEDS AND OUR PARTICULAR SITUATIONS.** Nowadays, if you see your doctor about a lung infection or diabetes, you will usually receive the same care as everyone else. This care is often based on the average response of patients who have a similar condition. But with innovations in medicine, the “one size fits all” approach may be changing. Precision medicine allows us to develop a personalized treatment plan just for you—based on your unique genetic makeup and your family history, lifestyle, and environment. Much of the work in precision medicine is in the early stages, but here’s how it can impact your health today.

**PERSONALIZED TREATMENTS**

Cancer is the area in which precision medicine has had the biggest impact. Everyone used to get the same “cocktail” of drugs to treat malignancy. For some cancers, we now can target therapies by analyzing the cancer cell’s genetic mutations. This is changing the way we treat cancer. The field of pharmacogenomics is teaching us how our genes can affect how we respond to drugs. We also are beginning to recognize that there is often variability in drug response based on factors other than genetics, such as gender, race/ethnicity, and age. Instead of giving the same drug and dosage to everyone, we likely will make adjustments. You should ask your doctor and pharmacist if you might respond differently to a drug based on these factors.

**PREDICTIVE POWERS**

One of the greatest benefits of the genetic health tests that many consumers now use is learning their risk for disease. In the past, we primarily had genetic testing for newborn screening. We can now look at your risk—based on your genetics—for conditions such as Parkinson’s and late-stage Alzheimer’s disease.

However, the results of these tests are not a diagnosis but rather information about your risk. Your family history of health conditions plays an important role and so does your lifestyle: what you eat, your quality of sleep, your stress level, and how active you are. Environment, including where you live, also plays a role in the diseases you might develop over time. Taking all of the information into account helps provide you and your doctor with the best health care strategies.

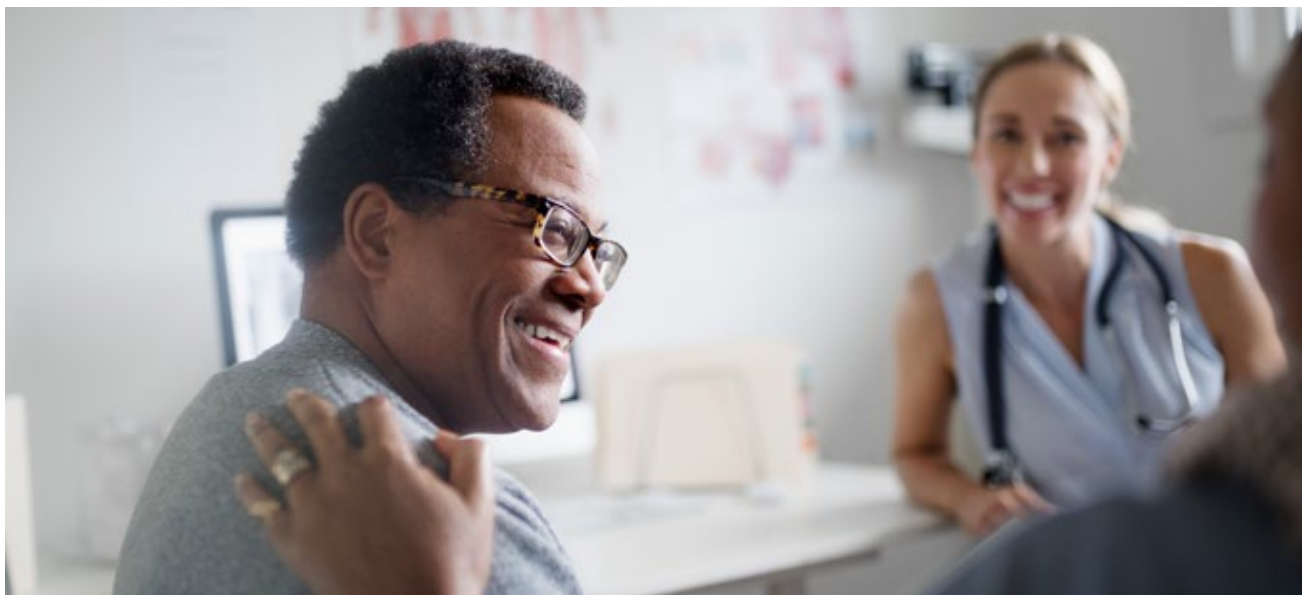
**PREVENTIVE STRATEGIES**

Instead of simply saying, “You need to eat more fruits and vegetables and go to the gym,” precision medicine helps us develop prevention tools that are tailored for you.

As medicine becomes more precise and personal, we will focus more on maintaining good health and not simply treating disease. Exciting times ahead.

Questions? Comments? Email me at [john@webmd.com](mailto:john@webmd.com).

Sign up for the **WebMD Daily Newsletter** at [WebMD.com](http://WebMD.com)



SPOTLIGHT

## Get the Facts

ARE MISCONCEPTIONS KEEPING YOU FROM BECOMING A LIVER DONOR? READ ON TO GET THE FACTS.

BY Matt McMillen

REVIEWED BY Neha Pathak, MD, WebMD Medical Editor

**CURRENTLY, ONLY ABOUT 4% OF LIVER TRANSPLANTS ARE DONE WITH LIVING DONORS**, who give about 40% to 60% of their liver to a loved one or someone else in need. The rest come from deceased donors. Many reasons account for the small number of living-donor transplants, but misconceptions about the procedure likely discourage many people from volunteering. Sylvester Black, MD, a liver transplant specialist and associate professor of surgery at The Ohio State University Wexner Medical Center in Columbus, clears up some common misunderstandings.

**Misconception #1: I can't donate my liver because I only have one.** You can survive if one lobe of your liver is removed, because the liver can regenerate. "The liver has a significant amount of redundancy," says Black. "That means you have about 300% as much liver as you need." You can safely donate up to two-thirds. And, as a big plus, the part of the liver that is removed will grow back in about eight weeks.

**Misconception #2: I have to be young to donate my liver.** That depends on your definition of young. Black says that as you get older, your liver may not regenerate as well as in your younger days. Also, surgery presents more risks for seniors. However, most liver transplant centers welcome donors as old as 55. Of course, your overall health also will determine your suitability, Black says: "As you get

older, medical conditions arise and become more common—like heart disease, diabetes, and high blood pressure—and a donor has to be a relatively healthy individual."

**Misconception #3: This is going to cost me a lot of money.** Depending on your circumstances, there may be some truth to this, but first, the positives: Your recipient's health insurance likely will cover living-donor benefits, such as the cost of the procedure, medical bills, and any other health care costs related to the donation, says Black. However, recovery will require you to miss about four to six weeks of work. "Will [the recipient's insurance plan] put money in your pocket while you're not working? No. That is not covered," he says.

**Misconception #4: I'll be required to have surgery at a moment's notice, when the need is most dire.** Not with living-donor transplants. Organs from recently deceased donors must be used as soon after death as possible, and they go to the sickest people on the transplant waiting list. Living donors and recipients, on the other hand, can choose a mutually acceptable date when they want the procedure performed. That works well for everyone. The recipient can get a new liver before they've become desperately ill, and the donor can pick a time that's least disruptive, such as during a vacation. "That ability to schedule is unique to living donation compared with deceased donation," says Black.

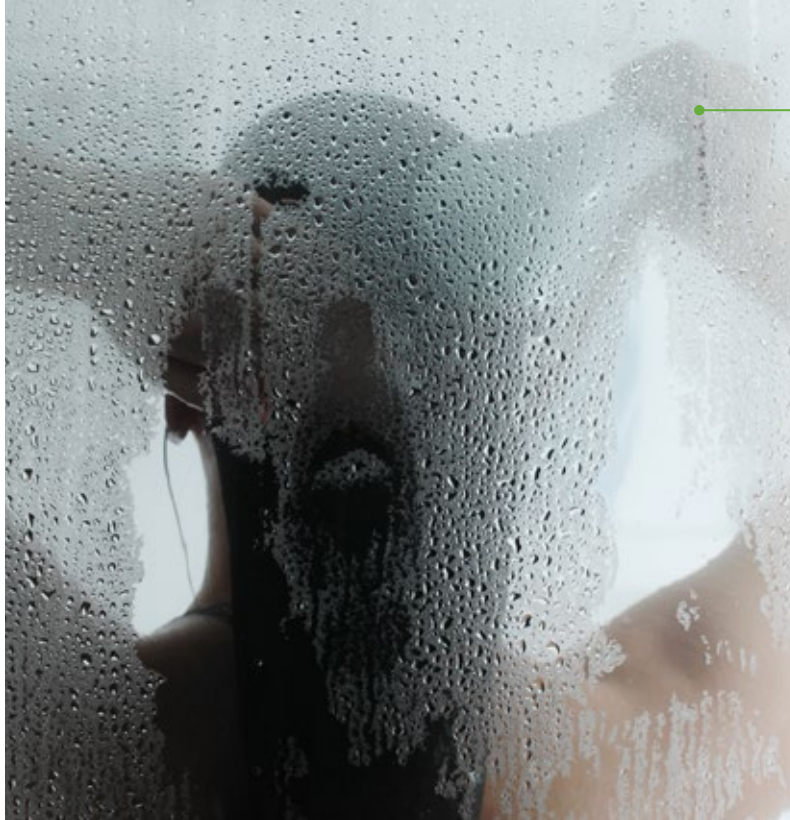


# Sinusitis

TIPS TO HELP PREVENT AND RELIEVE SYMPTOMS

BY Matt McMillen

REVIEWED BY Neha Pathak, MD, WebMD Medical Editor



GETTY IMAGES

## 10 TIPS

TO COPE

### 1. KEEP IT CLEAN

To avoid infections, use only distilled, sterile, or boiled-then-cooled water in your neti pot.

### 2. RELIEVE PAIN

Rest a warm, moist towel on your face to reduce sinus pain.

### 3. HIT THE SHOWERS

Let the hot, steamy air ease your discomfort and clear your sinuses.

### 4. AVOID THE CULPRITS

For allergic sinusitis, learn your triggers—like dust or pollen—and avoid them.

### 5. TAKE IT EASY

To help your body fight infection, get plenty of rest.

### 6. DRINK UP

Consume lots of liquids to help thin your mucus.

### 7. COOL DOWN

Go to the doctor if your fever tops 100.4°F.

### 8. HEADS UP

Elevate your head when you sleep to help mucus drain.

### 9. BE GENTLE

Lightly blow your nose, one nostril at a time.

### 10. WASH UP

Wash your hands often to help prevent future infections.



# My Story: Living With RA

HOW A SURPRISE DIAGNOSIS HELPED ME BECOME A VOLUNTEER TO HELP OTHERS LIVING WITH THE CONDITION

BY Helen King REVIEWED BY Michael W. Smith, MD, WebMD Chief Medical Editor



## HELEN'S TIPS FOR LIVING WITH RA

**1. FIND YOUR TRIBE**  
*Seek people who can support you through your bad days and be there to celebrate with you on your good ones.*

**2. BE PROACTIVE IN YOUR HEALTH CARE**  
*Advocate for yourself. It's not about your doctor telling you what to do, it's about partnering and learning how to talk to your doctor to get the best outcome.*

**3. PRACTICE SELF-CARE**  
*A lot of women are bad at putting themselves first. But it's important to do something that feeds your soul. For me, it's volunteering and giving back.*

**4. KEEP A POSITIVE ATTITUDE**  
*We all have down days. By no means am I flying through this without getting depressed or getting tired of being in pain after three days of a flare. I just try not to get stuck there.*

**FIVE YEARS AGO, A FEW MONTHS BEFORE MY 49TH BIRTHDAY, I WENT TO BED FEELING FINE BUT WOKE UP THE NEXT MORNING AND COULDN'T LIFT MY RIGHT ARM.** It was a feeling I'd never had before. I'm a fit, middle-aged woman. I was exercising, walking, eating right—all the things you're supposed to be doing to stay healthy.

I'd had spine surgery a few years before and have a titanium plate in my neck, and I thought it must be related. I saw my spine doctor, and he said, "This isn't your neck. I think you have rheumatoid arthritis [RA]." I'd heard of it, but I had no idea what I was in for.

He ordered blood work, and my numbers were off the charts. My rheumatoid factor was greater than 600—that's an antibody present in the blood of many with RA. Normal is less than 15. I was told to see a rheumatologist.

In the meantime, I was in pain. I work full-time. I have two grown sons and a very active life and couldn't do anything with my arm. I couldn't even hold a coffee cup. The pain progressed into my wrists and knuckles. They took X-rays, and thankfully I didn't have any joint destruction. My spine doctor put me on a steroid.

After I was officially diagnosed by my rheumatologist, I was put on another drug, which had

severe side effects. I started losing my hair, and it made me very sick. My rheumatologist switched me to a different form of the medication and the side effects were better, but it still didn't give me enough relief. A few months later, my doctor added another drug, a biologic, and it's that combination that keeps my disease under control. Now most days my pain is a one to two on a scale of one to 10. It becomes something you almost dismiss.

Even though my disease is well-controlled, I still have flare-ups. And if you've ever had tendonitis or bursitis in a joint, imagine that in multiple joints then throw a good case of the flu on top it. You feel like you've been run over by a truck.

Today, I'm doing really well. I consider myself very fortunate. I was diagnosed when my children were grown, and there are drugs that can slow the progression of the disease.

I still work more than 40 hours per week. And I eat clean—no sugar, processed food, red meat, or dairy. I drink a lot of water. I do Pilates and walk—easy on the joints.

We talk about the pain and the physical aspect that comes along with a chronic disease, but the mental and emotional side is just as important. I wanted to connect with other people who could understand my journey, and there wasn't a support group in my area, so I became a trained facilitator and started one for adults with arthritis and other rheumatic diseases. I'm also a volunteer with the Arthritis Foundation. By immersing myself in volunteering, it helps me.



Search for the slideshow [Guide to Bone Cancer](#) at [WebMD.com](#).

DOCTOR Q&A

# Bone Cancer

BONE CANCER IS RARE, BUT IT CAN BE AGGRESSIVE. LEARN THE WARNING SIGNS AND FIND OUT HOW IT'S TREATED.

BY Stephanie Watson  
REVIEWED BY Neha Pathak, MD,  
WebMD Medical Editor

TRUE BONE CANCER IS UNCOMMON, BUT CANCER CAN ALSO SPREAD TO BONES FROM OTHER PARTS OF THE BODY. **Christian Ogilvie, MD**, associate professor in the University of Minnesota Medical School Department of Orthopaedic Surgery, explains the difference and describes how bone cancer is diagnosed and treated.

**Q How do bone cancer and metastatic differ?**

**OGILVIE** USUALLY WHEN WE SAY bone cancer, we're referring to cancer that starts in the bone. That's called primary bone cancer. Metastatic cancer starts somewhere else in the body and travels to the bone. It keeps the name of the original cancer—for example, metastatic prostate cancer. Cancer that spreads to the bone is much more common than cancer that starts in the bone.

**Q How does cancer spread to the bones?**

**OGILVIE** ONE WAY IS THROUGH THE vein system. From your neck down to your hips, you have interconnected networks of veins. Blood can travel from one vein to another. Once cancer gets into your blood, it can go anywhere from your shoulders to your hips if the pressure conditions are right. Cancer

can spread from organs to bones, or from bone to bone, this way. The spine has a large system of veins, and its bones are most likely to be affected by cancer.

**Q What causes bone cancer?**

**OGILVIE** HIGH-DOSE RADIATION IS A risk factor. A few inherited conditions cause bone cancer, but they're rare. One is Paget disease. It involves a high degree of bone activity in which bone is being destroyed and remade at a very fast rate. Rapid cell division increases the risk of an error where cancer can pop up.

**Q What are the symptoms?**

**OGILVIE** THE MAIN SYMPTOM IS PAIN. A LATER symptom would be swelling as the tumor grows. Pain in the bone that doesn't have another good explanation needs to be checked out.

**Q How is bone cancer diagnosed?**

**OGILVIE** IMAGING TESTS SUCH AS X-rays look for abnormalities in the bone. If the X-ray finds anything, we need to do a biopsy. Needle biopsies are done when possible. In some cases, we have to do a surgical biopsy to get enough tissue.

**Q How is it treated?**

**OGILVIE** MOST PRIMARY BONE CANCERS are treated with chemotherapy first. Then we take the tumor out surgically, which may also involve reconstructing the bone. It's typical to have more chemotherapy after surgery to treat small amounts of tumor that have already spread.

For metastatic cancer, there's a twofold strategy as well. Low-dose radiation will stop the tumor from growing and also help with pain. We also use body-wide treatments such as chemotherapy or hormone therapy. If the bone bears a lot of weight, like the legs, we may need to reinforce it with a rod, plate, or cement to fix a break or prevent it from breaking.

**Q What is the outlook for people diagnosed with bone cancer?**

**OGILVIE** THE OUTLOOK HAS IMPROVED a great deal since the introduction of chemotherapy. Cure rates for some primary bone cancers like osteosarcoma are 70%. Researchers are looking for new treatments that will improve the outcome even more.

GETTY IMAGES

# Doctor Visit Smarts

A TOP GERIATRICIAN OFFERS ADVICE ON HOW OLDER ADULTS CAN MAKE THE MOST OF THEIR NEXT MEDICAL APPOINTMENT

BY Erin O'Donnell REVIEWED BY Brunilda Nazario, MD, WebMD Senior Medical Editor

**IF YOU'RE AN OLDER ADULT, YOUR DOCTOR VISITS MAY FEEL DIFFERENT THAN THEY DID WHEN YOU WERE YOUNGER.** That's due in part because people often develop multiple health problems as they age.

"Many older patients have a collection of medical conditions—like hypertension and heart failure, maybe a little bit of renal failure, maybe type 2 diabetes or high cholesterol—so we have to manage all of those things," says Jeremy Walston, MD, professor of geriatric medicine at Johns Hopkins University School of Medicine. "If you see a geriatrician or other health care provider who focuses on aging, they will also want to check you for cognitive changes and difficulties with moving and walking," says Walston, "and to get a sense of your social life."

Given this complexity, it's wise to come to appointments well-prepared, which boosts your chances of a productive visit. "It's important to think carefully ahead of time about what you want to accomplish," Walston says. He recommends jotting down three priorities or health concerns that you want to discuss

with your doctor so that those things don't get missed in a brief appointment. Explain your care preferences and health goals.

It helps the doctor to have an up-to-date list of your medications and any supplements you take. Come with a written list or bring all of your medications and supplements in their original containers to the appointment. Also bring information about any hospital stays or emergency room visits since your last appointment. "We encourage patients to get good documentation from their hospitalization and make sure that that information gets sent to the primary care doctor or the patient physically carries a discharge summary in with them," says Walston.

If you have trouble with memory or difficulties moving, such as walking or standing up from a seated position, Walston urges you to speak up at the appointment. Your doctor is increasingly likely to have solutions to help. "We have better and better ways to manage functional and cognitive decline to slow the trajectory," he says.

## ASK YOUR DOCTOR

### Q Should I see a geriatrician?

These physicians specialize in caring for older adults and are "in tune with the function, cognition, and social issues that an older adult might have," says geriatrician Jeremy Walston, MD. They're also experienced in managing patients with multiple health conditions. You're eligible to visit a geriatrician at age 65, but many of Walston's patients start seeing him in their 70s or 80s.

### Q Can you watch me walk?

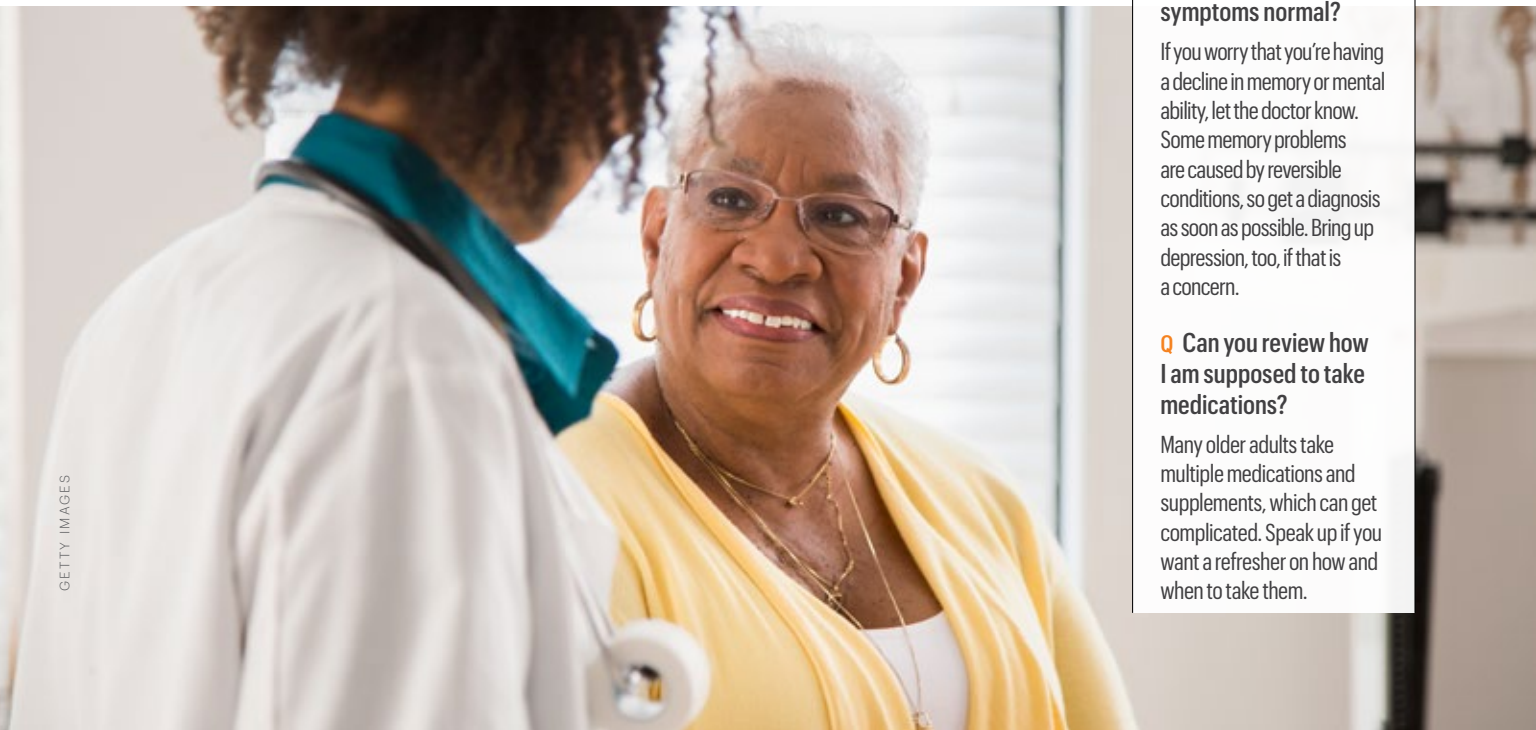
Geriatricians are particularly equipped to help address functional health problems, such as difficulty with movement or frequent falls. No matter which type of health provider you see, it's hard to be assessed if you're sitting still. Ask to be checked in motion, Walston suggests.

### Q I'm worried about my memory. Are these symptoms normal?

If you worry that you're having a decline in memory or mental ability, let the doctor know. Some memory problems are caused by reversible conditions, so get a diagnosis as soon as possible. Bring up depression, too, if that is a concern.

### Q Can you review how I am supposed to take medications?

Many older adults take multiple medications and supplements, which can get complicated. Speak up if you want a refresher on how and when to take them.



# A Healthy Foundation

PLAN NOW FOR YOUR FUTURE HEALTH NEEDS

BY Matt McMillen REVIEWED BY Neha Pathak, MD, WebMD Medical Editor

**MONEY CAN'T BUY YOU GOOD HEALTH, BUT IF YOU PLAN YOUR FINANCES WELL, YOU WILL BE BETTER ABLE TO MEET THE COSTS OF CARE.**

Such planning not only provides future benefits, it may also help you feel more at ease right now.

"Having insufficient finances can be really stressful when people think about their health care needs," says Jeffrey Kullgren, MD, MS, MPH, an associate professor of internal medicine at the University of Michigan Medical School in Ann Arbor.

In a 2018 study, for example, researchers reported that people who lost most of their financial security had a 50% higher risk of dying prematurely compared to those who maintained steady financial footing. Another study, published in 2014, found that employees who prepare for their future by contributing to their 401(k) retirement plan also were more likely to show improvements in health and report a drop in the number of sick days they took. Neither study could show cause and effect, but they both suggest that financial security and planning may impact our health.

"The biggest risk of poor planning: being unable to afford the care that you need when you need it," says Kullgren.

For Kullgren, the most critical financial decisions people will make involve their health insurance choices. He says it's easy to focus on the cost of a policy's monthly premium to the exclusion of other factors that will affect how much you spend, such as deductibles, co-pays, and out-of-network

costs. Those costs can add up and take a significant toll on your bank account.

"People often are really surprised at how much they have to pay, even when they have a policy," says Kullgren.

So how much money will you need to pay for health care after you retire? A 2018 study by HealthView Services predicts that a 65-year-old couple who retires today will spend \$363,946 on medical expenses during their remaining years. But because Medicare will only cover an estimated 51% of those costs, about half of those costs will fall to them. Also, Medicare currently does not cover long-term care, such as assisted living facilities, the average cost of which is approaching \$4,000 a month. That makes health care an essential part of financial planning, yet the AARP estimates that only slightly more than half of those who consult a financial planner include health care costs in those discussions.

"More and more people are having to figure out how to manage the costs of their health care," Kullgren says. A financial planner with expertise in health care expenses can help you understand what to expect and how to pay for it. "Then you'll know in advance that you can afford that deductible if an unexpected health issue comes up."

Kullgren also advises that you consider your future health when weighing your coverage plan and its costs. "Have a good understanding of any health conditions you now have and what they may require in the future," Kullgren says.

## 4 TIPS

**JEFFREY KULLGREN, MD,** OFFERS TIPS TO MAKE SURE YOUR FINANCIAL SITUATION IS AS HEALTHY AS IT CAN BE.

### 1. SPEAK UP

Talk to your doctor about your financial situation and concerns. A frank discussion will help your doctor steer you toward effective yet affordable health care options.

### 2. DISCUSS YOUR PLAN

This will help guide decisions that you make together, such as when it makes the best financial sense to have a necessary but non-emergency procedure.

### 3. START SAVING EARLY

To meet the costs of health care after retirement, start funding your plan now. A financial planner can review your options, such as health savings accounts, your 401(k), and individual retirement accounts (IRA).

### 4. DON'T WAIT

Make financial decisions about your health care while you are healthy. Don't wait until you have a health emergency, when you won't be able to think things through thoroughly.



**1. HOW WILL *RUNNING WILD WITH BEAR GRYLLS* BE UPDATED, NOW THAT IT'S MOVING TO THE NATIONAL GEOGRAPHIC CHANNEL IN NOVEMBER?**

We've been filming the boldest season of *Running Wild* with some of the best guests we have ever had, including actress Brie Larson and Alex Honnold from *Free Solo*. National Geographic is synonymous with adventure and showcasing the wild beauty of our planet. It's the perfect destination to amplify the series with bigger journeys and wilder destinations than ever before.

**2. YOU'VE GUIDED MORE THAN 100 FAMOUS PEOPLE OUT IN THE WILD. WHO HAS MOST IMPRESSED YOU WITH HIS OR HER SURVIVAL SKILLS?**

The wild doesn't care how famous someone is—it tests us and rewards courage, commitment, and perseverance. Taking President Barack Obama and Prime Minister Narendra Modi was interesting, dealing with their respective 50 secret service agents following their every move. I'm a huge tennis fan so taking Roger Federer felt pretty surreal. Delivering medicine to a remote village with Julia Roberts was very special.

**3. YOU BROKE YOUR BACK IN A 1996 SKYDIVING ACCIDENT AND YOUR SHOULDER IN 2008 DURING AN ANTARCTIC CLIMB. DO YOU HAVE ANY LASTING PHYSICAL EFFECTS FROM THESE ADVENTURES?**

It taught me the lesson that life is fragile. If we're lucky enough to survive, we have to get out there and grab life with both hands.

**4. HOW DO YOU TRAIN TO STAY PHYSICALLY FIT AND EMOTIONALLY HEALTHY TO OVERCOME SUCH DIFFICULT CHALLENGES?**

I stay as fit as I can. I consider it a part of my job. I train using short, highly effective workouts that I can fit around my schedule and family time. I still have a few niggling aches from the skydiving accident, so I do lots of yoga, get massages, and look after the way I fuel my body.



## Bear Grylls

*Outdoor adventurer,  
television host,  
45, London*

**"IF WE'RE LUCKY ENOUGH TO SURVIVE, WE HAVE TO GET OUT THERE AND GRAB LIFE WITH BOTH HANDS."**

**5. YOU'VE JUMPED OUT OF AIRPLANES, CROSSED BARREN DESERTS, DINED ON CREEPY-CRAWLIES, AND EXPLORED DARKENED CAVES. YET YOU SUFFER FROM ANXIETY?**

Fear is a part of life. The symptoms for me tend to come the day before. It's a sick feeling; I'm sure everyone knows what I mean. I've learned to stand up to it, embrace it, and use the emotion to keep me sharp and firing on all cylinders. I try never to let it overwhelm or control me. I'm still learning.

**6. WHAT'S YOUR SECRET FOOD INDULGENCE? DO YOU HAVE ONE?**

I have two: homemade guacamole and thick carrot cake!

**7. HAS FATHERHOOD ALTERED YOUR ATTITUDE ABOUT PUTTING YOURSELF IN THE PATH OF DANGER?**

It's made me reevaluate my relationship with risk. Risk is good; it stretches us, and that's how we grow. But you've got to be smart; you only get it wrong once. I've developed a good instinct of what is smart to do and what is not. I try and listen to that voice.

**8. HOW OFTEN DO ANY OF YOUR THREE SONS (JESSE, 16; MARMADUKE, 13; AND HUCKLEBERRY, 10, WITH WIFE SHARA) JOIN YOU OUT IN THE FIELD?**

Whether climbing in Scotland, skiing in the Alps, or exploring caves in Wales, we love to do all that as a family. Shara has lived with the dangers of my adventures for years now. I think she's learned not to ask too many questions.

**9. IF YOU COULD SHARE ONLY ONE BIT OF WISDOM FROM YOUR 2012 BOOK, *TO MY SONS: LESSONS FOR THE WILD ADVENTURE CALLED LIFE*, WHAT WOULD IT BE?**

The real wealth in our lives is found in relationships.

**10. AT 45, DO YOU EVER THINK ABOUT SLOWING DOWN? OR DO YOU WANT TO DOUBLE-DOWN?**

Life is a journey, isn't it? I always have an aspiration never to arrive at the end of my life in a perfectly preserved body but to arrive sideways, covered in scars, screaming, "Yahoo—what a ride!"

—LAUREN PAIGE KENNEDY