

CLOSEUP: A LOOK AT WOMEN AND OPIOIDS PAGE 37

WEBMD.COM

WebMD®

SEPTEMBER
2017

MAKE IT
TONIGHT!
3 NEW
CHICKEN
DISHES
PAGE 46

+

IS DIET
SODA
BAD FOR
YOUR
HEALTH?
PAGE 41

ASAP:
TALK TO
YOUR TEEN
ABOUT STDs
PAGE 29

IN HIS NEW FILM

Jake
Gyllenhaal

FINDS STRENGTH PORTRAYING A DOUBLE AMPUTEE

PAGE 31

FEATURES

31

Strong Enough

Actor Jake Gyllenhaal reflects on his latest movie and preparing to play a Boston Marathon survivor

37

Opioid Addiction: The Gender Gap

The opioid problem hits women harder than men. Two women share their stories.

41

The Diet Drink Debate

Is diet soda bad for your health?



FRESH START FOR FALL

6

Fall Reboot

As the season changes, start prepping for the winter months ahead

12

Fitness Smarts

Pack the week's exercise into one or two days

13

Work Wise

Studies show employees are more productive—and happier—with flexible work arrangements

54

Health Highlights

Sneezing? Watery eyes? Tame your fall allergy symptoms now.



Contents

SEPTEMBER 2017



22



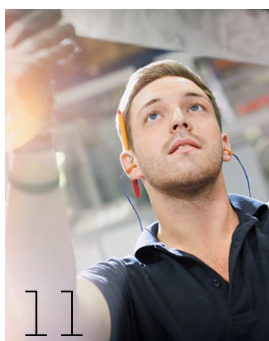
45



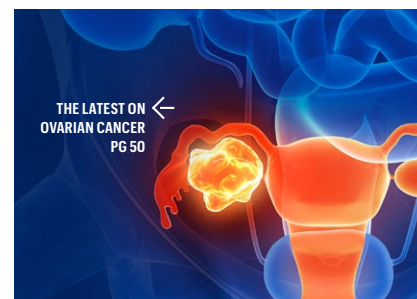
26



24



11



CHECKUP

- 50 **Cutting Edge** | Recent innovations may offer new options for ovarian cancer treatment
- 51 **Spotlight** | New ideas for improving your sleep
- 52 **Healthy Living** | A primer on menopause
- 55 **Quiz** | Test your knowledge about cholesterol
- 56 **Expert Q&A** | A commonly prescribed antibiotic can cause some serious side effects

LIVING

- 11 **Now Hear This**
Environmental noise could be damaging your hearing
- 14 **Mind Matters**
How creativity works
- 15 **Women's Health**
Belly fat increases health risks—but you can reduce it
- 16 **Men's Health**
Loneliness threatens many men's well-being

BEAUTY

- 17 **Plump Zone**
Here's why hyaluronic acid should be a staple in your beauty arsenal
- 18 **Expert Picks**
Eye cream (or gel) around the eyes can help slow the signs of aging
- 19 **Derm Q&A**
A plastic surgeon answers common questions about surgical facelifts
- 20 **Beauty Smarts**
How to deal with acne
- 22 **Anatomy of**
Get the scoop on sunless tanner

FAMILY

- 23 **Screen Routine**
Limiting kids' screen time can have long-term health benefits
- 24 **Pets**
Tips for ensuring cats use their litter boxes
- 26 **Baby**
New guidelines revise the old advice to keep a baby's diet peanut-free for the first year
- 27 **Pregnancy**
Home births are on the rise
- 28 **Teen Health**
The health risks of staying up late and getting up early
- 29 **Kids' Health**
Health experts call for straight talk from parents on sexually transmitted diseases

FOOD

- 45 **Fun Bunch**
Grapes are the original simple snack
- 46 **3 Ways: Chicken Breast**
Try this classic on a salad, with grains in a bowl, and paired with cauliflower "rice"
- 48 **Mushrooms 101**
Edible fungi offer loads of vitamin B
- 49 **1 Food, 5 Meals**
Make tomatoes the star all week long

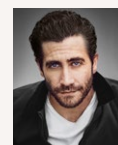
In Every Issue

- 4 **EDITOR'S NOTE**
- 6 **UPFRONT**
Benefits of eating in, plus health news you can use
- 57 **TAKE 10**
Why *Speechless* star Micah Fowler loves acting and comedy



On the Cover

PHOTOGRAPHY BY: MATTHEW BROOKES / TRUNK ARCHIVE



Health in the Moment



Health is part of every aspect of our life, from work-life balance to relationships, to what we eat, how much we sleep, move, and unwind. It's about the everyday choices we make in the moment that are right for us. That's why we're focused on covering the topics so many of us encounter as we move through our daily routines. In this issue, we take a look at flexible work arrangements, the benefits of strong social connections, limiting screen time, and even whether reaching for that diet soda is a healthy choice.

Also in this issue, don't miss our story with actor Jake Gyllenhaal about his new movie, *Stronger*, in which he plays Jeff

Bauman, the Boston Marathon bombing survivor and double amputee. It's a story of how one man overcomes tragedy to face a long road to recovery. Bauman's strength and determination is likely something many of us can draw inspiration from, as well as perspective, as we move through our daily lives and face choices both ordinary and exceptional.

Kristy

Kristy Hamman
EDITOR IN CHIEF
kristy@webmd.com



→
DOWNLOAD
WEBMD MAGAZINE
FOR FREE
on the App Store.

Clarification: Our story "Off the Charts" in the July/August 2017 issue about children's vision disorders may have been misleading for some readers. Vision problems in children may be due to a range of causes, including convergence insufficiency (CI), and doctors may differ in opinions on how to treat CI. Parents should make sure to consult their pediatrician and a pediatric ophthalmologist to ensure all possible causes are considered. We regret any confusion or inconvenience.

LEAD: A HIDDEN DANGER

A WebMD special report takes an in-depth look at places where lead hazards still exist—including water and paint. The report finds that in plenty of places around the U.S., the system for testing lead in water is not working as it should, leaving people uninformed and unprotected.

To see the full special report,
search "lead" at WebMD.com.



STAY IN TOUCH



SUBSCRIBE TO OUR
NEWSLETTERS
webmd.com/
newsletters



LIKE US ON FACEBOOK
facebook.com/
webmd



TWEET US
twitter.com/
webmd



PIN WITH US
pinterest.com/
webmd/web-
md-magazine



EMAIL THE EDITORS
webmdmagazine
editors@webmd.net



395 HUDSON ST., NEW YORK, N.Y. 10014

CORPORATE

EDITOR IN CHIEF

Kristy Hammam

EDITORIAL DIRECTOR

Colleen Paretty

EXECUTIVE EDITOR

Jennifer Fields

SENIOR EDITOR

Sylvia Davis

VICE PRESIDENT, EDITORIAL DEVELOPMENT

Stephanie Snipes

ART DIRECTOR

John Todd

DIGITAL EDITOR

Alyson West

CHIEF MEDICAL DIRECTOR

Michael W. Smith, MD

MEDICAL DIRECTORS

Brunilda Nazario, MD

Hansa Bhargava, MD

Arefa Cassoobhoy, MD, MPH

MEDICAL EDITOR

Neha Pathak, MD

CONTRIBUTING WRITERS

Christina Boufis, Sonya Collins
Heather Hatfield, Jodi Helmer
Ayren Jackson-Cannady, Katherine
Kam, Lauren Paige Kennedy, Lisa
Marshall, Matt McMillen, Erin
O'Donnell, Gina Shaw, Stephanie
Watson

PUBLISHER

Vanessa Cognard

SENIOR DIRECTOR, GENERAL MANAGER

Mathew Reynders

SALES OPERATIONS ANALYST

Kisha Jackson

ADVERTISING SALES

NEW YORK

CLAUDIA FERN

cfern@webmd.net
212-624-3728

PATRIA RODRIGUEZ

prodriguez@webmd.net
212-417-9542

JOHN SCHAETZLE

jschaetzle@webmd.net
212-624-3787

CHICAGO

TRACY KENNEDY

tkennedy@webmd.net
312-416-9275

ANNA NOVINGER

anovinger@webmd.net
312-416-9278

WEST COAST

NICOLE JONES

njones@webmd.net
213-718-5550

CHIEF EXECUTIVE OFFICER

Steven L. Zatz, MD

CHIEF FINANCIAL OFFICER

Blake DeSimone

CO-GENERAL COUNSEL

Douglas Wamsley

CO-GENERAL COUNSEL

Michael Glick

CHIEF COMMUNICATIONS OFFICER

Adam Grossberg

VICE PRESIDENT, FINANCE

James McCann

DIRECTOR, POLICY & GOVERNANCE

Theresa Saladino



805 THIRD AVENUE, NEW YORK, NY 10022

PRESIDENT

Georgine Anton

CREATIVE OPERATIONS OFFICER

Dan Davenport

ACCOUNT MANAGEMENT

GROUP DIRECTOR

Marissa Bryan

ACCOUNT DIRECTOR

Eric Meisner

MANAGEMENT SUPERVISOR

Billie Koester

PROJECT MANAGER

Kellie Kramer

SENIOR MARKETING SERVICE MANAGER

Annie Gormley

EDITORIAL

EDITOR

Michelle Rubin

ASSISTANT EDITOR

Kelsey Roehrich

HEALTH EDITOR

Martina Gago

FOOD EDITOR

Elizabeth Elliott

COPY CHIEF

Grant Fairchild

BOOKINGS DIRECTOR

Wendy Zipes Hunter

wendy@celebrity-concepts.com

CREATIVE

GROUP DESIGN DIRECTOR

Missy Bergwall

SENIOR ART DIRECTOR

Casey Gradischnig

ART DIRECTOR

Mekala Johnson

ASSISTANT ART DIRECTORS

Amber Hanson

Brittany Long

PRODUCTION

ASSOCIATE PRODUCTION DIRECTOR

Sigrid Anderson

CUSTOMER SERVICE & SUBSCRIPTIONS

MANAGE YOUR SUBSCRIPTION

EMAIL webmd@emailcustomerservice.com

CALL 888-798-0088

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

WEBMD MAGAZINE ON MOBILE DEVICES

DOWNLOAD

WebMD Magazine on
your iPad for free.

WebMD Magazine is distributed to doctors' offices throughout the U.S., online at WebMD.com, and by download from the App Store. WebMD Magazine is not responsible for advertising claims. WebMD Magazine (ISSN 1553-9946), Vol. 13, No. 6, is published by WebMD, LLC and may not be reproduced in whole or in part without written permission of WebMD, LLC. All editorial content is reviewed by our board-certified physicians, is for informational purposes only, and is not intended to be a substitute for professional medical advice, diagnosis, or treatment. WebMD does not endorse any specific product, service, or treatment. Always seek the advice of your health care provider with any questions regarding a medical condition and never disregard professional medical advice or delay seeking it because of something you have read in WebMD Magazine. If you think you have a medical emergency, call your doctor or 911 immediately. © 2017 WebMD, LLC. All rights reserved.

FRESH START

Fall Reboot

The leaves are falling and the kids are back in school. Now is the perfect time to prep for the winter months ahead.

91
degrees

The immune response to the common cold is less robust in the nose, which is 7 degrees cooler than the body's core 98 degree temperature. That's why scientists believe you're more likely to catch a cold during the chilly winter months than in warmer times of year.

420

Number of calories in a large pumpkin spice latte with whole milk. It also packs 18 grams of fat and 50 grams of sugar. Avoid the calorie/sugar overload and add nutmeg, sugar substitute, and 1% milk to regular coffee for a less sinful seasonal treat.

6 million

The number of work and school days Americans miss due to allergy attacks. Allergies that strike in fall are mainly due to mold, ragweed, and leaves.

4 grams

The amount of dietary fiber in an apple (peak season comes in fall). One apple gives you nearly 20% of your daily fiber requirement.

IN THE NEWS

Lessons Learned



COLLEEN PARETTY
Editorial Director
colleen@webmd.com

The devastating opioid crisis has made headlines for some time now, and the news continues to stagger.

But for women, the story is even worse and not as well known. More women are hospitalized for opioid abuse than men—U.S. cases rose 75% for females, versus 55% for males over a decade. A woman in the U.S. goes to the emergency room for a prescription painkiller misuse or abuse every three minutes. And they die at a higher rate than men.

Why? One reason is gender. “There are real biological differences in the way in which [women] handle these chemicals,” our expert says. Psychological and emotional aspects such as stress also play a role for more women compared to men.

In this issue, we look into the problem through the personal stories of two women who developed addictions to opioids and struggled to recover. To find out how they found their way out of a deadly drug addiction, **turn to page 37** for “Opioid Addiction: The Gender Gap.” — *Colleen*



SOMEONE NEEDS A NAP

SLEEP-DEPRIVED PRESCHOOLERS

may have more trouble paying attention, controlling their emotions, and processing information later in childhood. Preschoolers need 10 to 13 hours sleep every 24 hours, including naps.

SOURCE: Academic Pediatrics



Eat In & Skip the Screen

Screens and takeout might be the most fattening ingredients in your diet. Adults who never watch TV or videos at mealtimes are 37% less likely to be obese than their peers who always eat by screenlight. And those who cook all their meals at home are 26% less likely to be obese than those who never do.

SOURCE: Journal of the Academy of Nutrition and Dietetics

6%

PERCENTAGE

of people who are still on an opioid a year later after receiving an initial prescription for just one day.

SOURCE: CDC

1 in 5

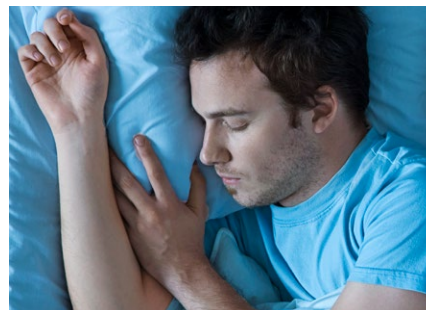
NUMBER

of people who get a different diagnosis with a second opinion

SOURCE: *Journal of Evaluation in Clinical Practice*

THE POWER OF SLEEP

You know diet and exercise help keep conditions such as diabetes and obesity at bay. But don't forget about shut-eye. Researchers studied the sleep habits of 1,344 middle-aged and older adults who checked three or more of the following boxes: obese, high cholesterol, high triglycerides, high blood sugar, and high blood pressure. Those who got less than six hours of sleep per night had a greater risk of dying during the 16-year study



period. For some people, depending on their individual conditions, the risk of death was double that of people who slept six hours or more.

SOURCE: *Journal of the American Heart Association*

Pet Paunch

Just like people, more than half of our pets are overweight. The extra fat leads to the same diseases, including type 2 diabetes and heart disease. Pets shouldn't exceed 20% of ideal body weight for their size, age, and breed.

SOURCE: *Cancer Epidemiology, Biomarkers and Prevention*

A NEW TEST FOR PROSTATE CANCER

"Watch and wait" is a safe approach for some cases of prostate cancer. But doctors must often perform unnecessary biopsies to identify more aggressive cases that need treatment. A simple urine test could help eliminate some of those biopsies. After a digital rectal exam raised suspicion of prostate cancer in 1,077 men, researchers tested their urine for the TMPRSS2:ERG and PCA3 genes. Compared to using the standard PSA test alone, the urine test significantly improved detection of more aggressive forms of the disease.

SOURCE: *Annals of Oncology*

BURNING COSTS

\$300 billion: the annual cost of smoking in the U.S. That includes \$170 billion in health care and \$156 billion in lost productivity.

SOURCE: *WalletHub*

Licorice Lovers

Mothers-to-be, be careful before you indulge a licorice craving. More than eight ounces a week—that's just over six servings—could be risky for your baby. Black licorice contains a natural sweetener called glycyrrhizin. Girls whose mothers took in more than 500 milligrams of licorice per week during pregnancy were more likely to start puberty early and to have cognitive problems. Both boys and girls of licorice-loving moms were at higher risk for ADHD.

SOURCE: *American Journal of Epidemiology*



GET UP, LAZY BONES!

KIDS WHO EXERCISE HAVE stronger bones than their sedentary peers, says a study of more than 300 children and young adults. Researchers tracked the young people's physical activity and measured their bone strength yearly for four years. The more moderate-

to-vigorous activity the kids got, the stronger their bones were over time. Those who met CDC guidelines that say kids should get 60 minutes of exercise per day had the strongest bones in the bunch.

SOURCE: *Journal of Bone and Mineral Research*

SALT AND SLEEP

Do you run to the loo all night long? Try cutting your salt intake. Researchers followed 321 Japanese adults (they tend to eat more salt than others) for 12 weeks. When they lowered their daily salt by 20%, they cut bathroom trips from 2.3 to 1.4 per night. On the flipside, the salt lovers who increased salt during the study saw a bump in nighttime pit stops, too. Less salt also meant fewer daytime visits to the latrine.

SOURCE: JAMA

WEIGHT-CONSCIOUS

If you're concerned about your child's weight, be careful how you show it. Children whose parents identify them as overweight are more likely to gain weight over the next decade than their peers, says a study that followed 2,800 families for 10 years.

When kids feel that their parents are unhappy about their weight, they might try to lose weight. Studies show that when children try to control their weight, they are more likely to gain extra pounds later.

SOURCE: *Psychological Science*

6 to 12

MILLION

Number of lice infestations that occur every year in the U.S. The numbers peak when school is in session.

SOURCE: FDA

NUTRITION NEWS

Look beyond the label. Foods that boast no- or low-sugar, fat, or salt content are not necessarily any more nutritious than regular foods, says an analysis of 80 million food and beverage purchases.

SOURCE: *Journal of the Academy of Nutrition and Dietetics*

THAT WAS INTENSE

High-intensity interval training—short bursts of high-intensity exercise followed by quick rests—could stop the aging process in your cells, says a recent study of previously sedentary people. Adults ages 18 to 30 and 65 to 80 completed a 12-week interval training program that included four days of cycling per week and three days of treadmill walking. At the end of the program, people in both age groups produced more of the proteins that feed and energize their cells than they did when they were sedentary. This essentially stopped cell aging.

SOURCE: *Cell Metabolism*



SENIOR SMARTS

Super-agers—adults older than age 80 whose cognitive skills are like those of people half their age—may have more brain tissue than their peers. In a study, researchers took brain MRIs and periodically measured the brain volume of 24 super-agers and 12 average older adults. While brain volume loss is normal as you age, the researchers found that the super-agers' brains decreased in volume at half the rate of their peers.

SOURCE: JAMA

35

CALORIES

a 150-pound woman burns while muscling groceries upstairs for three minutes. Skip the elevator!

SOURCE: USDA

Fruit > Juice

MORE THAN 6 OUNCES OF 100% FRUIT JUICE per day leads to weight gain in kids ages 1 to 6. More than 12 ounces will do the same for kids older than 6. Whole fruit has fewer calories and more fiber than juice.

SOURCE: *Pediatrics*



HEALTH ALERT

Now Hear This

From workplace clatter and road work to recreational gunfire, tens of millions of American adults are vulnerable to noise-induced hearing loss, a new study says. Are you one of them?

IS YOUR APARTMENT PERCHED by the subway tracks? Do you toil alongside the roar of heavy machinery? Over time, all that exposure to frequent, loud noise can damage your hearing—sometimes irreparably. Some 58 million Americans say they hear loud or very loud noise at home or work regularly. If you have to shout to make yourself heard by someone an arm's length from you, the noise in your environment could be damaging your hearing. Invest in earplugs and noise-reducing earmuffs when you can't get away from the noise around you. —SONYA COLLINS

FITNESS SMARTS

Weekend Warrior

Pack a week's worth of exercise into one or two days without risking injury



→ **Be Prepared**

When cramming in exercise, stick to your regular workout level to avoid hurting yourself.

In fact, cramming a week's worth of exercise into two days has the same effect on lifespan as spreading it out throughout the week, according to a recent study published in *The Journal of the American Medical Association*.

To conduct the study, researchers analyzed the activity levels and death rates of 2,175 adults. They were grouped according to their activity levels: inactive, meaning they got no moderate- to high-intensity exercise; insufficiently active, meaning they got less than the recommended 150 minutes of moderate-intensity exercise or 75 minutes of vigorous activity weekly; weekend warriors, who got the recommended amount but in just one or two sessions each week; and regularly active, those whose activity was spread out among at least three sessions per week.

All three active groups got similar benefits, proving it's better to do something rather than nothing. To put it into exact numbers, weekend warriors had a 30% lower risk of dying prematurely for any reason compared to non-exercisers.

With busy lives and cramped schedules, you may only have one or two days a week to fit in a full workout. But make sure you do the right kind of exercise for your fitness level. "If you do a large amount all at once and your body is not prepared, then you're more likely to get injured rather than to adapt and become stronger," says Milton.

AFTER A LONG WEEK OF RUSHING BETWEEN MEETINGS, KID PICKUPS, dinner duty, and book club, you find yourself with an uninterrupted hour or two on the weekend. You haven't worked in exercise all week, so you may be tempted to go for a massive workout all at once. But don't these so-called weekend warrior-style fitness bouts lead to injuries?

"Not if you check the impact of your workout and whether your body is prepared for it," says Heather Milton, senior exercise physiologist at New York University's Langone Medical Center.

4 Tips

EXERCISE PHYSIOLOGIST HEATHER MILTON OFFERS ADVICE FOR GETTING THE MOST FROM YOUR WORKOUTS WITHOUT RISK OF INJURY. THESE STEPS CAN HELP YOU NO MATTER YOUR FITNESS LEVEL.

GET A GUIDE

If you attempt a new feat, such as rock climbing, boxing, or martial arts, use a certified instructor and share your injury history and medical conditions before beginning.

WALK IT OUT

You're more likely to get injured if you throw yourself into high-impact activities, like running, without building up to it. Try brisk walking, swimming, or biking at first instead.

WARM UP

Many people skip warming up, but it greatly impacts your performance and injury risk. A simple five-minute warm up will help increase blood flow and transition the whole body from a resting to an active state.

COOL DOWN

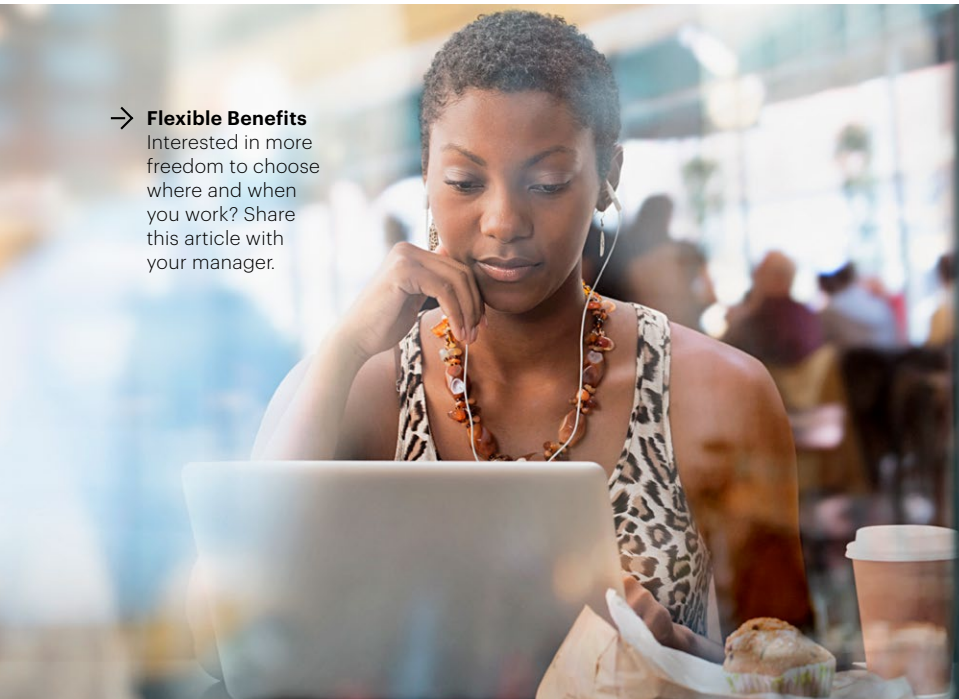
Cooling down also helps transition the body. Keep moving after activity not just for two minutes of stretching or walking, but throughout the day. This, and rehydrating, can reduce muscle soreness.

WORK WISE

Flex Time

Studies show employees are more productive—and happier—with flexible work arrangements

→ **Flexible Benefits**
Interested in more freedom to choose where and when you work? Share this article with your manager.



TOO OFTEN, PEOPLE FEEL THAT MEETING ALL THE DEMANDS OF WORK MEANS failing everywhere else. But it doesn't have to be that way. A recent study shows that when employees have more flexibility to get the job done on their terms, they do a better job at the office and in their personal lives.

"Flexible work arrangements can make it easier for employees to juggle all the responsibilities in their lives and to work when and where they can be most productive and on task," says Erin Kelly, PhD, a professor of work and organization studies at Massachusetts Institute of Technology and a study co-author.

CULTURE CHANGE

In the study, published in *American Sociological Review*, employees at a large corporation were divided into two groups. In one group, employees got to choose where they worked—from home, in the office, or a combination. They were free to change their schedules on a daily basis. As a team, they could choose

to cut down on face-to-face meetings and communicate in other ways. Their managers learned how to support their employees' professional development and work-life balance in this new flexible setting.

For the other half of the employees, it was business as usual.

After one year in the flexible environment, workers felt less burnout, stress, and psychological distress. They had greater job satisfaction, too. "Employees reported less conflict between work and the rest of life," says Kelly. "They were more likely to say they had enough time to be with their families."

Reducing stress and burnout in the workplace, the researchers say, can improve attendance, engagement, and productivity.

SIGN ME UP

Wish you had this kind of flexibility? Now might be the time to raise the subject. "Workplace cultures are shifting to recognize that people have responsibilities outside of work and that we need to think about working in a healthier, more sustainable way," Kelly says.

But the arrangement in Kelly's study was a full-scale culture change. Individual agreements that apply to one person but not the whole team can backfire. "Research suggests that those who seek out flexibility through an individual agreement are seen as less committed or competent and may face penalties," Kelly says.

Instead, rally your coworkers and approach management as a team. Both you and your employer could benefit. "Being thoughtful and creative in how we do our work can be a pathway to redesigning work to be more effective, efficient, and sustainable for all employees," Kelly says.

Start the Conversation

ERIN KELLY, PhD, OFFERS THESE TIPS FOR GUIDING A CONVERSATION WITH TEAMMATES AND SUPERVISORS ABOUT A MORE FLEXIBLE ARRANGEMENT AT WORK

TAKE STOCK

Assess what tasks team members do and learn how the team coordinates and communicates that work in order to find ways to be more efficient.

MAKE CHANGES

Focus on ways to facilitate more flexible schedules and working from home, or ways that help keep hours from creeping up.

FIND A WORK/LIFE BALANCE

Give equal attention to how flexibility can help you meet professional and personal goals. That way, employees and managers can see the mutual benefits.

MONEY ISN'T THE POINT

Don't negotiate for flexible arrangements in lieu of a raise. This can promote the idea that flexibility is a perk rather than the most effective way to do your job.

MIND MATTERS

Creative Works

Think you know the secret to a creative brain? The answer is more complicated than the right brain/left brain correlation you may have heard about.

MYTH OR REALITY: CREATIVE PEOPLE ARE RIGHT-brained.

Turns out it's a myth, according to a new study. Creativity isn't about which side of your brain is dominant. It's about how well the two sides—or hemispheres—communicate with each other.

"Individual regions of the brain interact, working in tandem, to create complex cognitive abilities, such as creativity," says Rex Jung, PhD, the neuropsychologist and University of New Mexico clinical professor of neurosurgery who led the study. His research falls under a branch of neuroscience called connectomics—exploration of the brain's interlinked networks.

Jung and his team gave tests to 111 healthy young adults to measure creative thinking or "thinking outside of the box." The test asked people, for example, to list as many new uses as they could for everyday objects, such as a brick or a paper clip. The researchers also took MRIs of the young adults' brains.

Those who scored in the top 15% on the

creativity test had more connections between the left and right hemispheres of their brains than those who got lower scores. Connections form in the brain's white matter. This tissue is underneath the ridged and grooved outer surface of the brain called gray matter. White matter contains the brain's wiring or axons. Links between axons facilitate communication between different brain regions, which could lead to that coveted out-of-the-box thinking. The links the researchers found in the most creative brains involved 68 individual brain regions. Most of the connections were in the frontal lobe, "a center for creativity and problem-solving," Jung said.

Does this mean that creativity is hard-wired and you've either got it or you don't? Definitely not, says Jung: "It's probably about a 50-50 split—50% genetic and 50% environmental."

That means your brain can change. Learning new things, such as a musical instrument or a foreign language, lays down new connections in the brain, which could help you become a more creative thinker.

Links between different brain regions could lead to that prized out-of-the-box thinking.

➔ Search for the article **Your Best Ways to Beat Belly Fat** at [WebMD.com](https://www.webmd.com).

REVIEWED BY **Brunilda Nazario, MD**
WebMD Lead Medical Director

WOMEN'S HEALTH

Beating Belly Fat

You know obesity comes with significant risks to your health. But is it true that where you put on that weight may have just as much of an effect on your health as the weight itself?



DURING THE PAST 10 TO 15 YEARS, STUDIES REPEATEDLY show that abdominal fat is a risk factor for heart attack, type 2 diabetes, and other cardiovascular conditions. **Sonia Anand, PhD**, a professor of medicine and epidemiology and women's health expert who heads up the McMaster University Cardiovascular Research in Gender (Caring) Program and helped lead Interheart, one of the largest international studies to date examining predictors of heart attack risk.

Q What did you find out about belly fat and the risk of heart disease?

A Our study was one of the first to specifically compare body mass index (BMI) with waist-to-hip ratio—a measure of how much belly fat you have—as a

predictor of heart attack. We found that fat distribution to the abdomen predicts who will have a heart attack more accurately than BMI.

Q What do other studies say about belly fat and health risks?

A In April 2017, a large Australian study found that waist-to-hip ratio was a better predictor of whether people would die over the course of the study than body mass index. People who had normal BMIs but still had excess fat around the abdomen had a 22% increased risk of early death compared to people with normal BMIs and healthier waist-to-hip ratios. Not only does excess abdominal fat increase heart disease risk, but other studies also suggest that it may increase the risk for breast and other cancers as well.

Q Why is this a particular problem for women?

A Before menopause, women tend to have less belly fat than men.

But when women go through menopause and lose their natural circulating estrogen, fat is redistributed. Women who have not previously had abdominal obesity may notice more weight around the middle. And within 10 years of going through menopause, a woman's risk factors for cardiovascular disease become similar to those of men of the same age.

Q How can women reduce belly fat?

A The biggest contributor to abdominal fat that we know of is diet. Highly refined, processed carbohydrates and sugars are associated with development of more abdominal fat. When you eat these, an immediate spike in blood sugar leads to deposition of fat around the middle. You should aim to eat a healthy, balanced diet that keeps your weight under control—and avoid these foods in particular—to keep off belly fat.

“We found that fat distribution to the abdomen predicts who will have a heart attack more accurately than BMI.”

4 Lessons

BELLY FAT MAY BE MORE LIKELY TO ACCUMULATE AROUND YOUR MIDDLE AS YOU AGE, BUT YOU CAN TAKE STEPS TO KEEP IT OFF, SAYS **SONIA ANAND, PhD**, AN EXPERT ON WOMEN'S HEART HEALTH

KNOW YOUR RISK

Check belly fat by wrapping a measuring tape around the widest part of your abdomen while standing up. Women should aim for less than 35 inches.

WHITE OUT

Limit white foods, like breads, pastas, and potatoes, along with other refined carbs and sugar, which causes a quick spike in blood sugar, adding to that spare tire.

FIBER UP

Replace refined carbs and sugars with high-fiber foods like apples, whole wheat bread, black beans, and veggies like broccoli to avoid blood sugar spikes.

THINK BEYOND SIT-UPS

Building core strength isn't a bad thing, but don't rely on sit-ups or other “tummy targeters” to reduce fat around your abdomen. Instead, regular, vigorous exercise such as bicycling, swimming, or jogging can help you cut fat overall.

➔ Search for the quiz **Do You Know the Health Benefits of Friendship?** at WebMD.com.



MEN'S HEALTH

Make a Connection

Meaningful relationships make for a long, happy, and healthy life. Yet, loneliness threatens many men's well-being.

LONELINESS—AND THE SOCIAL ISOLATION THAT OFTEN COMES WITH IT—may be a greater health hazard than obesity and just as deadly as smoking. Studies have linked loneliness to many health problems, including poor sleep, high blood pressure, inflammation, and depression symptoms. Loneliness also may increase a person's risk of dementia and an early death.

For men, recent research is telling: In spring 2017, a British survey revealed that 35% of men feel lonely at least once a week. In a 2010 AARP survey, 37% of American men age 45 and older reported being lonely.

Robert Waldinger, MD, a psychiatrist at Massachusetts General Hospital in Boston, defines loneliness not as being alone but, rather, as feeling less connected to other people than you would like to be.

"A hermit on a mountaintop may be really happy, while someone surrounded by family, friends, and coworkers may feel isolated or like an outsider," says Waldinger, who leads the nearly 80-year-old Harvard Study of Adult Development, which included John F. Kennedy among its original recruits.

ASK YOUR DOCTOR

Q I feel lonely sometimes. Is that a problem?

Not necessarily. It's OK to occasionally feel isolated, lonely, or down. It happens.

Q When should I worry about loneliness?

If your loneliness causes low moods that last and last, get help.

Q What can I do to help myself feel better?

Try exercise. Physical activity is a good antidepressant. Better still, work out—or simply go for a walk—with a friend.

Q How can I connect with others?

Some ideas: Volunteer at a nursing home, mentor a young person in your field, teach English or another language.

Waldinger says that loneliness often occurs following significant life changes, such as after college, having a child, or retirement. "Suddenly, your social world narrows," he says.

Men, he continues, could be particularly prone to loneliness. "Our culture gives a message about being independent more strongly to men, so men are more likely to think they're not supposed to need closeness."

But they do. Over their lives, the men in the Harvard study who had rich relationships had greater health and happiness.

To foster better relationships in your own life, says Waldinger, first tend to those you already have. For example, choose to skip couch time and call a friend to make plans or simply catch up. Go on a date night with your partner; your phone can stay at home.

If you feel you have no friends, make some through activities you care about. Join the crew of a political campaign or another cause that energizes you, suggests Waldinger: "That's how you kindle friendships."

He adds, "You'll likely see a snowball effect. More connections lead to better health, and that leads to more energy for more connections—it's a virtuous cycle, rather than a vicious cycle."

SKIN CARE

Plump Zone

If hyaluronic acid is not yet a staple in your beauty arsenal, here's why it should be

IMAGINE TAKING ONE SIP OF WATER AND GETTING all of the H₂O you need for the day. That's similar to what it's like to use a hyaluronic-laced skincare product. The molecule has the ability to absorb up to 1,000 times its weight in water, making it a key ingredient for controlling hydration, maintaining volume (without needles), improving skin texture, and reducing the appearance of fine lines, says Tsippora Shainhouse, MD, a dermatologist in Los Angeles and a clinical instructor at the University of Southern California. While hyaluronic acid occurs naturally in the skin, aging causes some loss. But you can find it in over-the-counter products, including moisturizers, masks, eye creams, and serums. To ensure you buy an effective product, look for hyaluronic acid, sodium hyaluronate, or hyaluronan on the label.

—AYREN JACKSON-CANNADY

➔ Search for the slideshow [Must-Have Secrets for Beautiful Eyes](#) at WebMD.com.

REVIEWED BY *Karyn Grossman, MD*
WebMD Medical Reviewer

EXPERT PICKS

Eye-Opener

Skin around the eyes shows signs of aging the fastest, so choose a cream or gel that's perfect for your peepers. Start here with suggestions from George Skandamis, MD, dermatologist and medical director, Universal Dermatology and Vein Care, Columbus, Ohio.



1. HAVE A BALL
Garnier Brighter Anti-Puff Eye Roller (\$13)

"In addition to vitamin C, (a key ingredient in many eye products), this roller ball gel also contains caffeine, which helps to reduce puffiness and under-eye bags. Bonus ingredient: mint, which produces a cooling feeling."

2. TWINKLE, TWINKLE
RoC Retinol Correxion Eye Cream (\$15)

"Made with ascorbic acid (vitamin C) and retinol (vitamin A), this potent cream is great for brightening the skin around your eyes and diffusing fine lines."

3. DRY, BYE
EltaMD Renew Eye Gel (\$50)

"The secret that makes this gel work so well is hyaluronic acid; it's an amazing ingredient that hydrates the skin, reduces flaking, and helps diminish fine lines."

4. MOISTURE LOCK
CeraVe Eye Repair Cream (\$15)

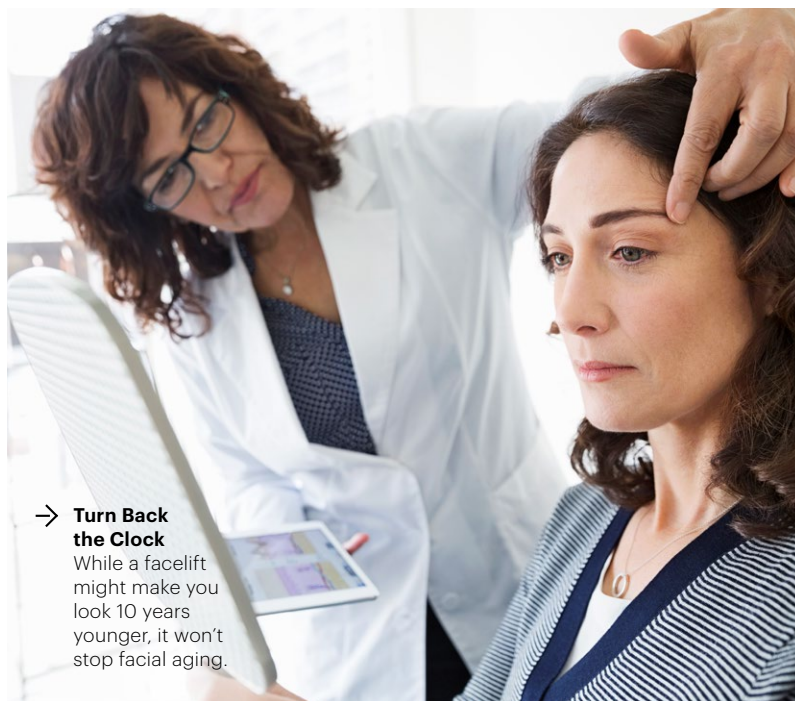
"This cream contains ceramides—lipid molecules that help hold skin cells together, plump the skin, and retain moisture. The ceramides help moisturize your eyelid skin, which improves the appearance of fine lines and wrinkles."

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&A

Uplift

If imagining yourself as you looked decades back makes you happy, a facelift may be your closest option to time travel. But is surgery necessary? Will it look natural? Our expert has answers.



→ **Turn Back the Clock**
While a facelift might make you look 10 years younger, it won't stop facial aging.

WHILE MINIMALLY INVASIVE FACIAL REJUVENATION TECHNIQUES like injectables and lasers are trending, results can vary, depending on factors ranging from your particular expectations to the expertise of your dermatologist. But for facial rejuvenation, no technique is as powerful and long-lasting as a surgical facelift, says New York City plastic surgeon **Joshua D. Zuckerman, MD**.

When considering a facelift, you have a variety of options. A full facelift involves incisions in front of and around your ear. Others, like short scar lifts and mini lifts, involve shorter cuts or smaller areas.

A facelift may involve not just tightening of your skin but also tightening

of the support structures and muscles underneath your skin. Your doctor may pair it with liposuction, fat grafting, and skin re-draping for a more natural look.

Q What's the procedure like?

A Facelifts are typically performed under general anesthesia, or sedation with local anesthesia. Surgery is outpatient, taking typically two to five hours. Pain is somewhat relative. A facelift is indeed a somewhat major surgical procedure, but typically a very well-tolerated one.

Right after surgery, most of your face will be numb from anesthesia. In the next two to three days there's discomfort, but it's easily controlled with oral narcotics like Percocet or Vicodin. Most people don't need narcotic pain medication for more than two to three days. Stitches are removed at the one-week mark.

Q What's recovery like?

A Expect moderate swelling and bruising, which peaks around three days. Around 75% to 90% percent of the swelling usually resolves by 14 to 21 days. Some degree of additional settling of the tissues continues for several

months, with the final result visible around six months.

However, swelling is typically down enough to go back to daily activities at two to three weeks. I ask my patients to refrain from the gym or vigorous physical activity for at least two weeks.

Q When will I see results?

A Results begin to become evident in the second week after surgery. They're quite obvious at the three- to four-week mark. They're final around six months.

Q How long does it last?

A A well-done facelift likely resets the clock on facial aging by around 10 years. But facial aging continues to occur.

Q Any drawbacks?

A It's a procedure with some downtime and recovery. Drawbacks of a substandard facelift can include visible scars and an unnatural appearance. When it's done well, scars are very inconspicuous—hiding along the hairline and the margins of the ear—and the rejuvenation is natural-looking. It's important to go to a surgeon who knows what he or she is doing, quite simply.

4 Tips

READY FOR A FACELIFT? TRY THESE TIPS FROM PLASTIC SURGEON **JOSHUA D. ZUCKERMAN, MD**.

DO YOUR HOMEWORK

Go to a board-certified plastic surgeon or facial plastic surgeon with experience in a variety of facelift techniques.

GO FOR QUALITY

It's your face. Going cheap may not work in your favor. Choose a high-quality surgeon.

CUT BACK

To minimize bleeding and bruising, limit alcohol and avoid aspirin, ibuprofen, and blood-thinning medications a week before surgery.

MOVE LESS

After surgery, limit strenuous activity. Keep your head elevated above your heart to minimize swelling.

BEAUTY SMARTS

Break the Breakout Cycle

Here's why experts say that in the quest for clear skin, two treatments may sometimes be better than one



BREAKOUTS CAN SEND ANYONE TO THE DRUGSTORE TO FILL A BASKET with every acne treatment on the shelf or make an urgent call to a dermatologist. While these reactions may sound extreme, both might be effective strategies.

According to the American Academy of Dermatology, acne affects about 50 million people annually in the United States, and 85% of Americans between the ages of 12 and 24 will develop some sort of acne.

The many choices for treatments—whether over-the-counter (OTC) or prescribed—reflects how widespread the condition is. Add to that the many types of acne, with multiple causes, and it's easy to understand why one answer can't address all acne problems.

"Acne treatments work synergistically. For example, to prevent the development of antibiotic resistance, we typically use a combination of benzoyl peroxide and clindamycin," says Paul M. Graham, DO, a clinical instructor at Michigan State University and editor-in-chief of the *Dimensional Dermatology* blog. "Combination therapy works better than monotherapy in the majority of the cases."

One of the reasons is that not all acne is created equal. Different categories of breakouts include blackheads, closed comedones or whiteheads, papules, pustules, and cysts.

For blackheads and whiteheads, start at the drugstore. The OTC options specifically designed for acne are salicylic acid, benzoyl peroxide, and adapalene, says Whitney High, MD, an associate professor of dermatology and pathology at the University of Colorado School of Medicine in Denver. Salicylic acid acts as an astringent and dries oil, benzoyl peroxide fights acne-causing bacteria, and adapalene is a form of retinoid that helps exfoliate, he explains.

Aisle Do

TURN UP THE HEAT AND TURN DOWN THE STRAND DAMAGE WITH THESE STYLIST-APPROVED PRODUCTS



PRODUCT PICK
MOROCCAN OIL Heat Styling Protection Spray (\$22)

"This spray can protect hair from up to 430 degrees of heat while also preventing breakage and split ends. I love that it is a versatile product that can be used on wet hair before blow drying or on dry hair before any iron styling."

Elena Marten

stylist, G2O Spa + Salon, Boston

PRODUCT PICK
DAVINES Melu Shield (\$36)

"Besides protecting hair from heat, this product is also weightless and speeds up blow dry time significantly. It has a wonderful smell and because it's oil-free, won't make hair heavy or feel greasy."

Fae Norris

stylist, Rock Paper Salon, Los Angeles

PRODUCT PICK
ORIBE Soft Lacquer Heat Styling Spray (\$35)

"With this hard-working spritz you'll reduce dryness and damage of the hair shaft, dramatically decrease split ends, add more shine, and promote healthy-looking hair."

Bernards Ziverts

owner/master stylist, Matii Salon, New York City

REVIEWED BY *Mohiba Tareen, MD*
WebMD Medical Reviewer→ **Read the Labels**

Look for ingredients that will help the type of acne you have.

But you want to avoid layering all three or you risk aggravating the condition. “All of these medications can be extremely drying and when used together can cause significant irritation,” Graham says. “I typically recommend using a retinoid at night and a benzoyl peroxide or salicylic acid in the morning.”

While a dermatologist can help at any time—even if to suggest the best drugstore regimen—make an appointment to see a doctor if your acne hasn’t improved with two to three months of treatment, the breakouts are causing you mental distress, or you have red, swollen inflammatory acne with papules, pustules, and cysts, High says. “Just as you should see a cardiologist for your heart, you should see a dermatologist for your skin,” he says. Cystic acne always requires medical treatment because scarring is a concern.

Dermatologists have access to a range of medications that can target breakouts from multiple directions, including antibiotics, retinoids, isotretinoin, oral birth control, as well as combinations like retinoids and antibiotics, which research shows can be especially effective.

Plus, doctors have the inside information on the newest and most innovative treatments. For example, “a real breakthrough in acne therapy is

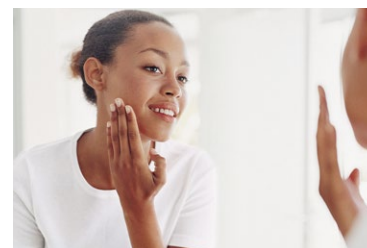
aldactone, which impacts hormones to reduce menstrual-related breakouts,” says Manjula Jegasothy, MD, an associate professor of dermatology at the University of Miami medical school. Or they can suggest complementary treatments such as adding a probiotic cleanser to balance the effects of taking antibiotics, she says.

Jegasothy also gives patients the option to reduce inflammation with a laser treatment or undergo a medical peel to reduce clogging and oil production, and minimize inflammation—all of which can be used along with other treatments.

“Now we have so many good tools to manage acne that we can find something that significantly improves everyone’s acne,” High says. “It’s just a matter of finding which ones will work for the individual.”

THE ANATOMY OF ACNE

PAUL M. GRAHAM, MD, EXPLAINS HOW MULTIPLE FACTORS CAN CAUSE A BREAKOUT AND MAY REQUIRE DIFFERENT TREATMENTS TO IMPROVE THE CONDITION



“STICKY” HAIR FOLLICLES

The skin cells that line pores can clump together and clog the follicle.

EXCESS BACTERIA

Microbes called *P. acnes* live in your oil glands and feed off sebum, the waxy, oily substance designed to protect the skin. Excessive sebum encourages the bacteria to colonize and grow at an excessive rate.

INFLAMMATION

When *P. acnes* consume sebum, they produce waste that stimulates an inflammatory immune system response and sends white blood cells to the area, causing redness and swelling.

HORMONES

Some hormones increase the production of sebum, which gives *P. acnes* more food and increases inflammation.

Dirty Secret

“I DON’T CHANGE MY TOOTHBRUSH EVERY THREE MONTHS—DO I REALLY NEED TO?”

TOSS & REPLACE

“The American Dental Association suggests tossing your brush every three to four months. The reason: Assuming you use it two times a day, the bristles will get worn down, fray, and no longer clean effectively.”

CLEAN UP YOUR ACT

“Bacteria, including *E. coli*, staph, and herpes, live in your mouth and the environment and can collect on the brush over time. As the bristles fray, harmful microbes have more surface area to collect on, so you increase the odds of getting sick.”

AVOID THE DRILL

“The bacteria that thrive on a toothbrush are also responsible for tooth decay and gum disease. Not only are worn-down bristles unable to scrub plaque off the surface of the tooth effectively, they also leave behind more microbes that can cause cavities and eventually lead to a root canal (worst case scenario).”

—Jennifer Dean, DMDS, owner, Rancho Santa Fe Dentistry, San Diego

ANATOMY OF...

Sunless Tanner

What goes into creating a faux glow?



SWEET DEAL

The active ingredient in self-tanner is dihydroxyacetone (DHA), a sugar that reacts with the amino acids in dead skin cells to create a browning effect. It's similar to the reaction that causes food to brown under heat—but in this case you're just staining the skin, not cooking it. DHA is also responsible for the telltale self-tanner smell.

SUNNY SIDE EFFECTS

In the 1950s, Eva Wittgenstein, a researcher at a Cincinnati hospital, noticed that the DHA medication she used to treat a glycogen storage disease turned her patients' skin brown. She published her findings in 1960 and bottled tans showed up soon after.

STAY COVERED

Having a fake tan may give you the appearance of someone who can soak up the sun, but UV rays can still do serious damage. So wearing SPF is still crucial. And some evidence shows that high levels of DHA may increase free radical activity when exposed to UV rays for 24 hours after you apply it. The DHA levels in commonly available sunless tanners, however, are safe.

GET EVEN

For the most streak-free results, exfoliate to remove dry skin, then apply a thin layer of the tanning lotion. To extend the life of your bronze, moisturize daily to slow down the natural shedding process of the skin cells.

START AT THE BOTTOM

Apply tanner in circular motions (rubbing in if you are using a spray). Start at your feet and work your way up—this will prevent creases and streaks from bending over. Lightly go over ankles, knees, and elbows, which will absorb more tanner.

HOLD YOUR BREATH

Spray tanning booths aren't FDA approved; all-over spray tans may not be safe for the eyes, nose, and mouth. In addition, the FDA has received reports of coughing, fainting, and dizziness after inhaling spray tanner. Check with your doctor before booking a spray tan appointment, especially if you're at risk for pulmonary disease.

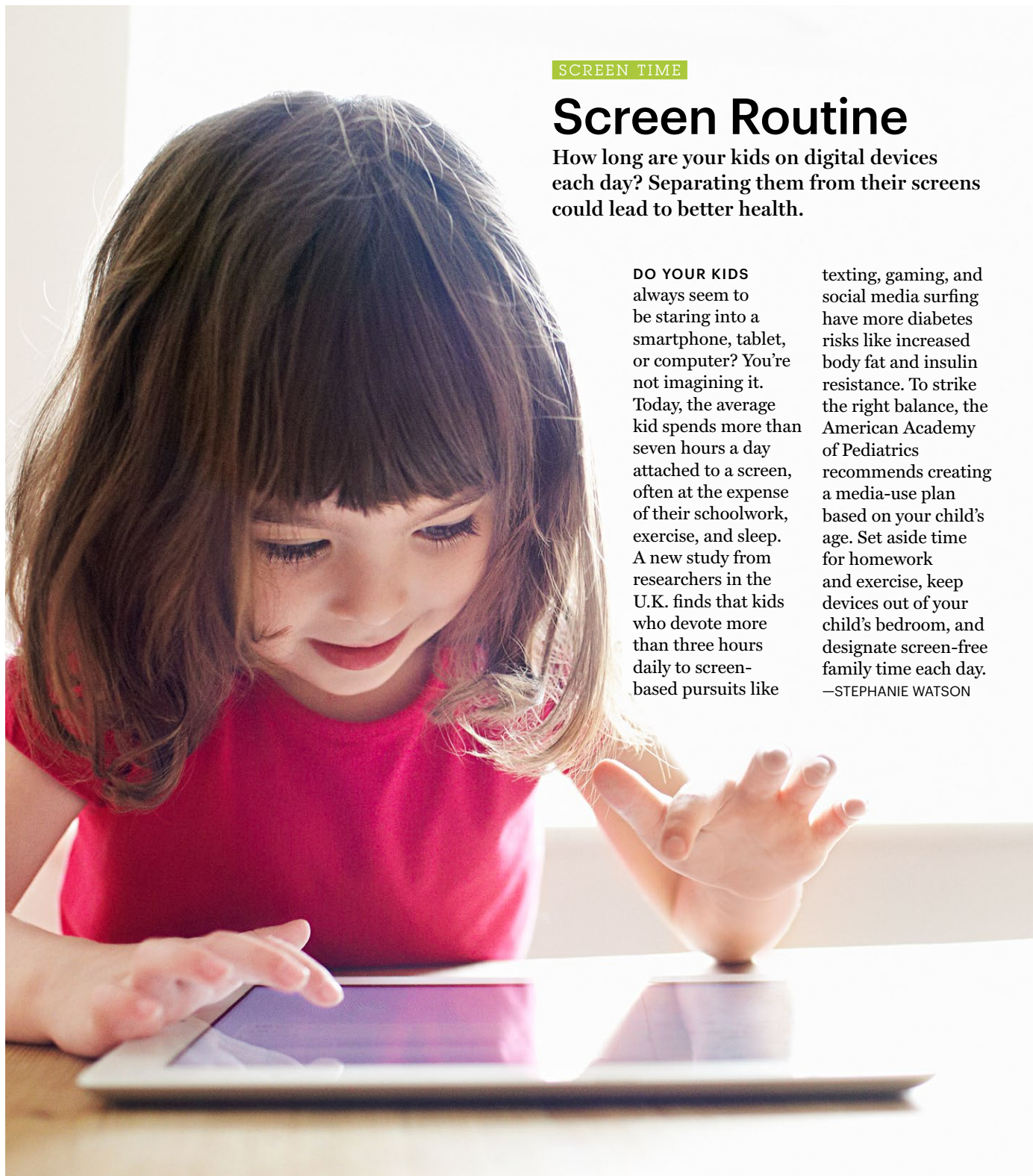
SCREEN TIME

Screen Routine

How long are your kids on digital devices each day? Separating them from their screens could lead to better health.

DO YOUR KIDS always seem to be staring into a smartphone, tablet, or computer? You're not imagining it. Today, the average kid spends more than seven hours a day attached to a screen, often at the expense of their schoolwork, exercise, and sleep. A new study from researchers in the U.K. finds that kids who devote more than three hours daily to screen-based pursuits like

texting, gaming, and social media surfing have more diabetes risks like increased body fat and insulin resistance. To strike the right balance, the American Academy of Pediatrics recommends creating a media-use plan based on your child's age. Set aside time for homework and exercise, keep devices out of your child's bedroom, and designate screen-free family time each day. —STEPHANIE WATSON



→ Search for the article **Controlling Cat Litter Box Odor** at WebMD.com.

REVIEWED BY Will Draper, DVM
WebMD Medical Reviewer



PETS

Inside the Box

Has your cat skipped the litter box? The reason may be stress or a medical problem.

YOUR CAT MIGHT NEVER LEARN TO FETCH, SHAKE, OR ROLL OVER, BUT IT CAN learn the ultimate trick: using a litter box.

While cats have strong instincts to use a litter box, issues ranging from stress to the location of the box can cause cats to decamp to other areas to do their business. Going outside the box was the number one reason owners cited for giving up their cats to shelters, according to one study.

→ **Just Right**
Make sure your litter box is the appropriate size for your cat.

To reform these “litter quitters,” Marny Nofi, senior behavior manager at the ASPCA, suggests starting with a trip to the vet to rule out a medical problem.

Your vet will check for issues like urinary tract infections that could be causing urination outside the litter box. Some cats that haven’t been spayed or neutered may also “spray” to mark their territories. Treating medical problems—or having your cat neutered—should get them back in their litter boxes.

Your vet may also ask about stressors, which can range from bringing home a new baby (or a new pet) to switching to a new type of litter. Both can cause cats to eliminate outside of their litter boxes. Minimizing the stressor—going back to the original brand of litter or moving the box to a more private (child-free) location—could be all it takes to get your cat using a litter box again. Remember to clean up any accidents so the scent doesn’t tempt your cat back to the same spot again.

Although litter box issues can be frustrating, Nofi warns, “Don’t punish cats, because it can make the problem worse. The best solution is to figure out the cause and fix it.” She adds that cats prefer clean and private litter boxes. (One study found that using litter box odor eliminator sprays reduced the number of accidents outside the litter box.) Placing litter boxes in quiet locations and cleaning them daily will encourage cats to get back inside the box.

Litter Box Smarts

DIFFERENT CATS NEED DIFFERENT LITTER BOXES, ACCORDING TO PET HEALTH EXPERT **MARNY NOFI**. IF YOU HAVE ONE OF THESE CATS, YOU MIGHT NEED TO SWITCH.

KITTENS

Standard litter boxes are too big for kittens. “You have to make sure the sides are low enough that they can get in and out easily,” Nofi says. Look for kitten-size boxes at the pet store. You can even use a baking pan.

ELDERLY CATS

Older cats with arthritis may have difficulty crouching down to go to the bathroom, but standing can cause urine and feces to land outside the litter box. Nofi suggests litter boxes with higher sides for older cats.

BIG CATS

A Maine Coon will need a larger litter box than a Siamese. “The ideal size is one-and-a-half times the length of the cat,” says Nofi.

SEVERAL CATS

Multi-cat households need multiple litter boxes. “It’s best to have one box per cat plus one extra,” Nofi explains. A house with two cats needs three litter boxes.



PARENTING

Collateral Damage

In the age of “conscious uncoupling” some divorcing parents aim to make a split amicable. But our expert says that’s easier said than done.

THOUGH U.S. DIVORCE RATES MAY BE AT THEIR LOWEST IN 40 YEARS, THE typical American marriage still has only a 50% chance of lasting “till death do us part.” Modern couples wait longer to marry, while many partners choose never to marry at all. According to the National Center for Health Statistics, 40.3% of all U.S. births are now to unwed mothers.

This means kids of divorce—and of splits that were never legalized in the first place—are ubiquitous. So are the long-term effects in some emotionally damaged children and the adults they eventually grow into, says John Chirban, PhD, ThD, author of *Collateral Damage: Guiding and Protecting Your Child Through the*

→ Lingerin Impact

A recent study shows 76% of children of divorce say lack of open communication during their parents’ divorce had a negative effect on them.

Minefield of Divorce. Outcomes include poorer health, greater insecurities and emotional problems, less success in school and in relationships, substance abuse, and higher rates of suicide.

“Children aren’t commodities—they’re commitments,” says Chirban. Yet divorcing adults too frequently focus on their own pain, anger, or even future plans to marry again and “often forget to parent,” he adds.

Kids, whether they’re 6 or 16 or even older, suffer the consequences. “They hear ‘divorce’ and think: *This is the end of my childhood, or the end of my family.* They inherit the problems of the marriage.” And, because they often serve as go-betweens, they “must continue to manage what their parents couldn’t resolve.”

He adds, “You wouldn’t transplant a houseplant back and forth several times a week and expect it to endure. Yet we do it with kids all the time.”

For his book, Chirban drew from research that surveyed more than 10,000 children and parents of divorce: “Eighty-five percent [of respondents] say they were hurt by lack of involvement”—meaning, their parents didn’t talk openly with them during the divorce—“with 76% saying it left a very negative effect on them.”

Chirban asserts that “the quality of parenting is the single-most important factor to keep kids from being a statistic of collateral damage stemming from divorce.”

4 Tips

PARENTS SHOULDN’T GO TO WAR OR USE THEIR KIDS AS PAWNS. HOW SHOULD THEY ACT? EXPERT **JOHN CHIRBAN, PhD**, OFFERS A FEW SUGGESTIONS.

COMMUNICATION IS KEY

“Listen. Love. Communicate,” advises Chirban. “Answer your child’s tough questions. Be age-appropriate but honest.”

GET IN TOUCH WITH YOUR FEELINGS

Chirban says it’s important to “self-observe and scrutinize” your own thoughts of anger, loss, and frustration—and not to transfer them onto your kids.

REACH OUT IF YOU NEED SELF-CARE

Need to complain about how unfair your ex is being? Or how overwhelmed you feel? Seek therapy. You need a safe space out of earshot of children.

BE YOUR KID’S COMPASS

“Don’t stop parenting,” Chirban reminds divorcing parents. “Continue to provide guidance. Lead your kids. Don’t expect them to support you.”

BABY

Peanut Protein Pointers

New guidelines revise the old advice to keep a baby's diet peanut-free for the first year. Experts now say some infants should eat peanut protein early and often. We demystify the new recommendations.



➔ **Mix It Up**
Add water to peanut butter for peanut protein you can add to vegetable puree.

IN AN EFFORT TO STOP BABIES FROM DEVELOPING PEANUT ALLERGIES, THE National Institute of Allergy and Infectious Diseases announced new guidelines that recommend giving some infants foods containing peanuts as early as 4 to 6 months old.

An expert panel based the guidelines on the rigorous Learning Early About Peanut Allergy study, which followed infants at high risk of developing peanut allergy. It found that feeding those babies peanut protein soon after they started solid food reduced their chances of developing a peanut allergy, says Amal Assa'ad, MD, clinical director of the division of allergy and immunology at Cincinnati Children's Hospital Medical Center, who helped write the guidelines.

Researchers think that when an infant eats and digests peanut protein, his immune system learns to tolerate it.

In the new recommendations, babies are considered high risk for peanut allergies if they have an egg allergy or moderately severe eczema. In that case, your doctor should test your baby for existing peanut allergy using a blood test or skin prick test. "Those who are positive for peanut allergy are referred to a specialist" and must avoid peanuts entirely, Assa'ad says.

But if results show the baby doesn't have a pre-existing peanut allergy, you should give him one serving of peanut protein at least three times a week starting at 4 to 6 months and continue indefinitely. Some high-risk babies need to try peanut protein for the first time at the doctor's office, where the medical staff can help if the baby has a life-threatening allergic reaction, Assa'ad adds.

A single serving of peanut protein is 2 grams, the amount in 2 teaspoons of peanut butter. "Parents can mix it with hot water so it becomes more liquefied, and mix it into vegetable puree or other foods," Assa'ad says. "Remember: We don't want to feed the infant actual peanuts—which are a choking risk—but some form of peanut protein."

ASK YOUR DOCTOR

Q What if my baby doesn't have an egg allergy or moderately severe eczema, but we have a family history of peanut allergy?

This may put your baby in the high-risk category for peanut allergy.

Q What should I do if my baby has mild to moderate eczema?

Babies with less-severe eczema are considered lower risk for peanut allergy. In those cases, introduce peanut-containing foods around 6 months, and continue to offer them periodically. If you feel nervous, "you can still give peanut protein for the first time at your doctor's office, under supervision," says Amal Assa'ad, MD.

Q How is eczema linked to peanut allergy?

Treating and managing eczema to prevent skin dryness and cracking may reduce peanut allergy risk. Researchers think some infants develop allergies when tiny peanut particles enter the body through cracked skin.

Q I'm hoping to get pregnant again soon. Can I eat peanuts while pregnant?

Yes. Researchers say pregnant and breastfeeding moms should not eliminate peanuts from their diet and can continue to eat them.

➔ Search for the WebMD Pregnancy App at WebMD.com.

PREGNANCY

Home Safe

Home births are on the rise. Our expert highlights some important considerations for pregnant women.



BIRTHS OUTSIDE OF HOSPITALS ROSE 72% IN THE LAST DECADE—BUT THEY'RE NOT SAFE for everyone. **Kimberly J. Cox, PhD**, registered nurse, certified nurse midwife, and associate professor, University of New Mexico College of Nursing, Albuquerque, New Mexico, explains.

Q Why are home births on the rise?

A Although cesarean rates have declined slightly in the past couple of years, first-time rates remain high at 20% of U.S. births. The total cesarean rate is more than 30% of births. Women who want to avoid a cesarean, whether a first or second one,

or attempt a more natural birth might feel they would be better supported to do that in a home setting.

Q How should a woman prepare for a home birth?

A Consider whether there are trained home-birth providers in the area and the distance to the nearest hospital in case it's needed.

Research the provider's training, experience, and reputation. Does the provider have an established relationship with a physician who can offer backup if needed? Does the provider have a good relationship with the hospital?

Most women considering home birth find a midwife. Two types of credentialed midwives are available—certified nurse midwives/certified midwives (CNMs/CMs) and certified professional midwives (CPMs). CPMs can practice midwifery in 31 states. Most offer home- or birth-center births. All 50 states recognize CNMs, but fewer CNMs deliver outside of hospitals. CMs are recognized in five states. An

increasing number of hospitals have CNMs/CMs on staff.

Next, know your risks. Most women with risk factors are best cared for in a hospital setting. You and the midwife should agree on the circumstances under which you would transfer to the hospital.

Q Home birth might be riskier for some women than others. Who's an ideal candidate?

A Someone who desires an unmedicated, vaginal birth and feels she can achieve it. Our research shows those at lowest risk for any problems have given birth before without a C-section, and their fetus is not breech or in another abnormal position. Any of those factors increase the risks of home birth.

Q How can women ensure a hospital delivery would be less medical?

A You can have a totally natural birth in the hospital. Discuss your wishes for a natural birth with your provider, whether it's a doctor or a midwife, during your prenatal care.

BY THE NUMBERS

5%

Percentage of women who have previously delivered a baby vaginally and never had a C-section who transfer to the hospital before the baby is born.

25%

Percentage of women attempting to deliver their first child at home who transfer to the hospital before the baby is born.

31.9%

Percentage of women who have previously delivered by C-section only who transfer to the hospital before delivery.

19.6%

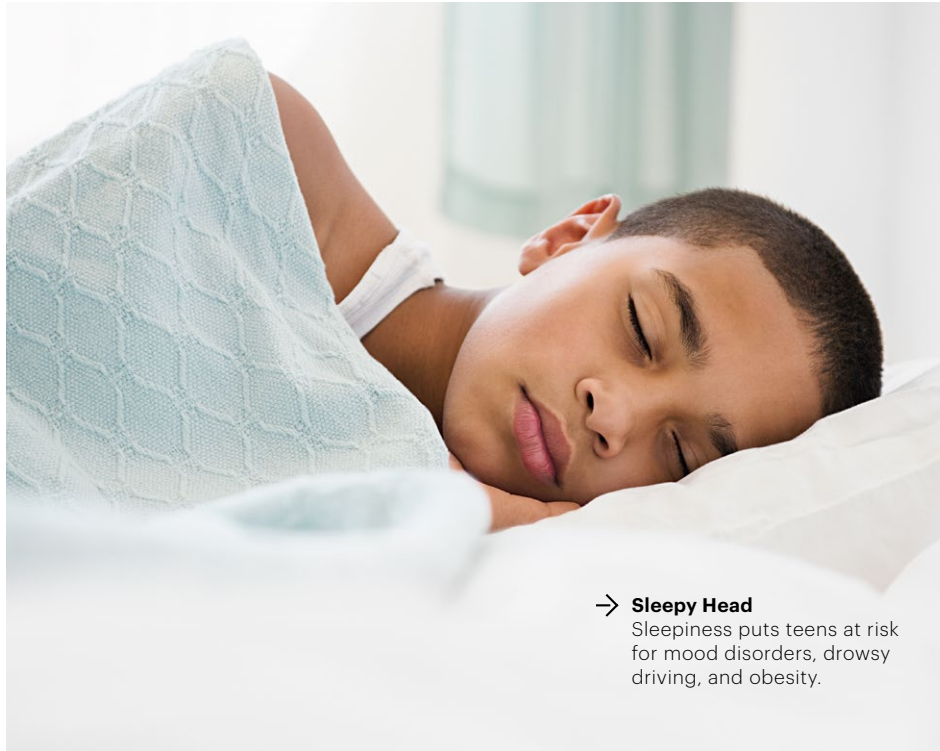
Percentage of women having twins who transfer to the hospital to complete delivery.

→ Search for the article [How to Get Teens to Get Enough Sleep](#) at [WebMD.com](#).

TEEN HEALTH

Late Shift

Staying up late comes naturally to teens. But waking up early for school can lead to chronic sleepiness—and possibly a host of other problems.



→ **Sleepy Head**
Sleepiness puts teens at risk for mood disorders, drowsy driving, and obesity.

“[Electronic] devices are perfect sleep killers.”

MOST TEENAGERS ARE HARD-WIRED TO STAY UP LATE AND sleep in. A delayed body clock makes them feel more awake just when you wish they would go to bed. But new research shows why you should still try to help your teen develop better sleep habits.

An online survey of 2,017 middle and high-schoolers in Fairfax, Virginia, found that teens with late bedtimes and daytime sleepiness are more likely to struggle to manage their emotions, behavior, and school-related tasks. They may be forgetful, disorganized, or impulsive.

About one in five of the teens said they got less than seven hours of sleep a night—well short of the 8½ to 9½ hours pediatricians say they need. But lack of sleep alone didn’t affect their behavior.

Problems arise when teens stay up late, then get up early for school or activities, going against the body’s natural cycle of sleepiness and alertness known as the circadian rhythm, says Sujay Kansagra, MD, a pediatric neurologist and sleep specialist at Duke University Medical Center in Durham, North Carolina. “It’s a mismatch between society’s demands and what your body wants to do at that time,” he says.

Sleepiness puts teens at greater risk of mood disorders, drowsy driving, and obesity, according to the American Academy of Pediatrics, which calls for later start times in middle and high schools. Only about one in six public middle and high schools starts at 8:30 a.m. or later.

Teen devotion to electronic devices plays a role, too. Buzzing text messages keep teens awake, while the blue glow of smartphones and tablets suppresses melatonin, the hormone that makes people sleepy. “These devices are perfect sleep killers,” says Kansagra.

While you may not be able to convince your school system to change the school start time, you can ask your teen to shut off the phone at least 30 minutes before bedtime and make sleep a priority.

Better Sleep

TAKE AN ENCOURAGING, NOT PUNITIVE APPROACH TO YOUR TEEN’S SLEEP HABITS, ADVISES PEDIATRIC SLEEP SPECIALIST **SUJAY KANSAGRA, MD**

APPEAL TO TEEN CONCERNS

Point out consequences they care about, such as being tardy or missing out on morning activities with friends.

FIND ROLE MODELS

NBA players have talked about how sleep helps them reach their peak performance.

TAKE SMALL STEPS

Instead of fighting about the phone at bedtime, ask your teen to lower the brightness or set it on night mode with the sound off.

SHIFT BEDTIMES SLOWLY

Encourage bedtime just 15 minutes earlier than usual. Ask your pediatrician about melatonin, an over-the-counter supplement that helps shift the circadian rhythm.

→ Search for the **Safe Sex and Teen Quiz: How Much Do You Know?** at WebMD.com.

REVIEWED BY **Hansa Bhargava, MD**
WebMD Senior Medical Director

KIDS' HEALTH

Let's Talk About STDs

With rates of sexually transmitted diseases rising and half of new infections hitting youth, health experts call for straight talk from parents, alone time with physicians, and more screening



YOU'VE ENSURED YOUR TEEN OR COLLEGE STUDENT HAS HAD AN ANNUAL checkup, kept her or him up-to-date on vaccines, and had the talks about dating and unintended pregnancy. But have you had a frank discussion about sexually transmitted diseases (STDs) or even suggested he or she be tested?

As uncomfortable as it may feel, it might be time.

While the CDC recommends all sexually active women younger than age 25—and some young men—be screened annually for STDs, fewer than 12% have been, according to a 2016 study of 3,953 sexually active youth ages 15 to 25. Nearly half said they don't get tested because they don't think they're at risk; a third

→ Keep It Going

Turn "the talk" into an ongoing conversation about sexual health.

said their doctor never offered a test. Some 13% who are still on their parent's health plan said they

wouldn't ask their doctor for a sexual health assessment for fear their parents might find out. And 20% of parents report they have not talked with their children about sexual health at all, according to a 2014 Planned Parenthood poll.

Such stats worry pediatricians, who have watched rates of chlamydia, syphilis, drug-resistant gonorrhea, and other STDs climb in recent years after decades of retreating.

"Our successes of the past have led to a false sense of security," says John Steever, MD, an assistant professor of pediatrics at the Mount Sinai Adolescent Health Center in New York City. With AIDS now considered a treatable illness instead of a death sentence, and new medications readily available for treating the symptoms of some common STDs, today's teens worry less about infection than their parents did, he notes. Meanwhile, public prevention campaigns have withered since the 1980s. Condom use among his patients is dropping off.

"Parents need to be having open conversations about this, and health care

Continued on page 30

Continued from page 29

providers need to be talking with their patients to find out what their risks are.”

CDC research shows that, due to an array of biological, social, and developmental factors, teens bear a disproportionate risk, accounting for about 10 million of the 20 million new cases of sexually transmitted infections each year.

For instance, adolescent females are more susceptible to chlamydia (the most common reportable STD) than older women, due to the presence of immature, more infection-prone cells on the surface of their still-developing cervix, explains Buffalo, NY-based pediatrician Gale Burstein, MD.

“Our successes of the past have led to a false sense of security.”

Cognitively, both boys and girls—whose brains are still developing into their early 20s—have a harder time planning ahead or imagining future consequences of their actions than adults do.

And teens tend to date numerous people throughout the year, although only one at a time. “They often believe that if they are in a monogamous relationship,

they are at low risk of STDs. That is a false belief,” Burstein says. Another common false belief: That anal or oral sex can’t spread infection.

The consequences of getting an STD at a young age can be grave. Many have no symptoms, and left unchecked can lead to infertility, chronic pelvic pain and inflammation, or greater susceptibility to HIV later in life.

While a number of new drugs do exist, some diseases—like gonorrhea—have grown resistant to those drugs.

How can parents help? Burstein and Steever recommend starting the conversation about safe sex and infection prevention well before high school, as studies show many teens are already sexually active by then. Also, make sure that your teen has alone time with his or her physician, who can get an honest, confidential assessment that will guide which, if any, STDs to screen for. Youth who get that alone time are about twice as likely to receive a sexual health assessment and, for females, be tested for chlamydia, CDC research shows.

Then keep checking in.

“Even though kids may not want to engage with their parent at first about these issues, at least they know their parents are willing to talk when the time comes,” says Burstein, pointing to studies that show those talks can have a big impact.

“If kids feel connected to their parents and their parents give them messages that they should not engage in sexually risky behavior, they are far less likely to do so.”



HOW TO TALK WITH YOUR TEEN ABOUT STDs

START EARLY

As early as preschool use the correct names for genitals. Talk about cleanliness and how germs can spread.

ENCOURAGE YOUR TEEN OR YOUNG ADULT TO TALK WITH HER PARTNER

Before engaging in sexual relations, young couples should talk about their sexual histories, and make a plan to stay safe.

DON'T HAVE JUST ONE TALK

Tackle the topic of safe sex in bits and pieces, as opportunities arise.

ENGAGE YOUR PEDIATRICIAN

Ask your doctor to talk to your teen. He or she might disclose things to a physician that are too uncomfortable to tell you.

BY THE NUMBERS

50%

Percentage of new infections each year diagnosed in youth ages 15 to 24 (who make up only 27% of the sexually active population).

24,000


Number of women who become infertile each year due to undiagnosed sexually transmitted infections.

41%

Percentage of high school students who have had sexual intercourse.

43%

Percentage of high school students who did not use a condom the last time they had intercourse.

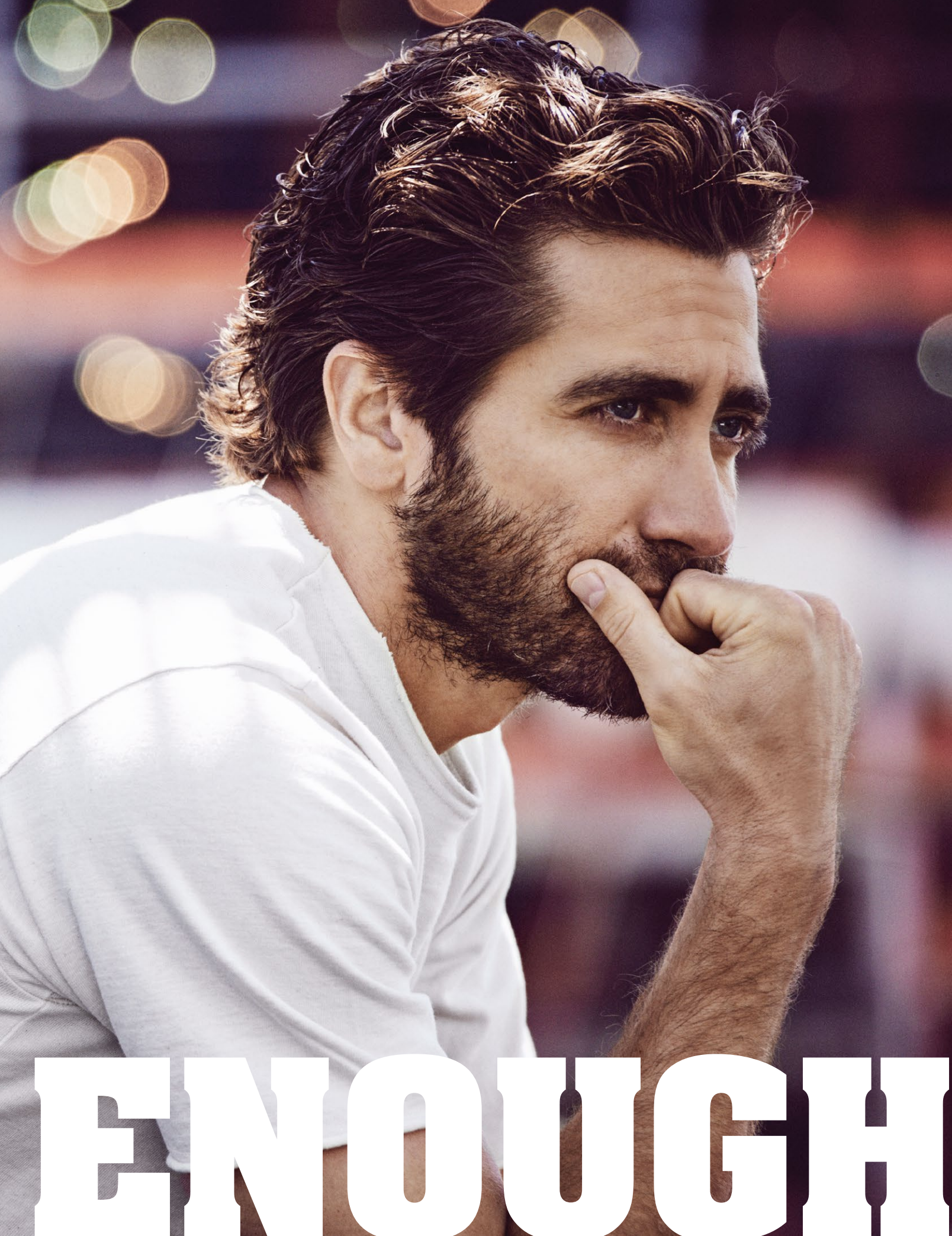


**IN HIS LATEST MOVIE,
ACTOR JAKE GYLLENHAAL
PORTRAYS A DOUBLE-AMPUTEE
WHO SURVIVED THE BOSTON
MARATHON BOMBING—AND
TAUGHT HIM ABOUT STRENGTH
AND GRATITUDE**

BY MATT McMILLEN

REVIEWED BY MICHAEL W. SMITH, MD
WEBMD CHIEF MEDICAL DIRECTOR

STRONG



ENOUGH

ON APRIL 15, 2013, two homemade bombs exploded in Boston, near the finish line of the city's famed marathon. Three people died. Hundreds were injured. Sixteen people lost limbs. In the movie *Stronger*, which premieres this month, Jake Gyllenhaal portrays survivor and double-amputee Jeff Bauman, who came to embody the motto that emerged after the tragedy, "Boston Strong." The movie, based on his book of the same name, dramatizes Bauman's recovery and his path back to walking.

"It's a story of what it takes to move beyond a dark place into light, into hope, into life," says Gyllenhaal, who spent months with Bauman to prepare for the role. The two are now close friends. Bauman, 31, con-

siders Gyllenhaal an older brother. He went on to star in many notable films, including *Zodiac* (2007), *Source Code* (2011), and *Prisoners* (2013).

Gyllenhaal combines abundant talent with an often-punishing work ethic. To prepare to play a Los Angeles police officer in *End of Watch* (2012), he spent five months doing ride-alongs with the LAPD. He witnessed a murder the first night. He trained as a boxer for *Southpaw* (2015); his five-month regimen, which included 2,000 sit-ups daily, added 28 pounds of muscle to his 6-foot frame.

In the previous year's *Nightcrawler*, he played Lou Bloom, a relentless cameraman who profited from television news's demand for crime, violence, and gore. To better capture Bloom's gaunt, hungry persona, Gyllenhaal reportedly ran 15 miles

immersion in the characters he portrays. "Jeff and I always joked that I didn't go all the way," says Gyllenhaal, laughing. His legs, after all, remain intact.

ROAD TO RECOVERY

The film, the first made by Gyllenhaal's production company, Nine Stories, does not flinch from Bauman's pain. He stood just a few feet from the bomb when it blew up. The blast mangled his legs, and doctors amputated both of them about 4 inches above the knee. The film depicts the removal of Bauman's sutures during an agonizingly long scene. Viewers watch the hands and hear the voices of the surgeon and nurses as they work. (The surgeon in the scene was Bauman's real life surgeon, Jeffrey Kalish, MD, of Boston Medical Center.)

"It was very important that we elongate that scene, that we show the pain that he goes through," says Gyllenhaal. "Things like this bombing happen in the world all the time, but what we don't hear so much about is the recovery of the people who survive, how their lives are changed, what they feel."

David Crandell, MD, led an essential part of the recovery after the bombing. The medical director of the amputee program at Spaulding Rehabilitation Center in Boston, Crandell treated all but one of the lower leg amputees, including Bauman.

After an amputation, patients work through muscle-building exercises to prepare for their prosthetics. They also focus on wound management. Infection remains a risk even after the initial injury has healed. Patients must be vigilant about hygiene and signs of trouble, such as abrasions or blisters that can occur if the prosthetic does not fit properly. Minor irritations can become major complications if infection sets in.

Patients also need to be prepared mentally for life without legs. To that end, rehab physicians often

"WHAT WE DON'T HEAR ABOUT IS THE RECOVERY OF THE PEOPLE WHO SURVIVE, HOW THEIR LIVES ARE CHANGED, WHAT THEY FEEL."

siders Gyllenhaal an older brother.

"When we started to hang out, I'd catch him trying to copy some of my mannerisms," Bauman recalls of working with and getting to know Gyllenhaal. "He put so much effort into the story."

ROLE PREP

For Gyllenhaal, 36, film is a family affair: his father is an Emmy-nominated film and television director, his mother an Oscar-nominated screenwriter, his older sister, Maggie, a Golden Globe winning actor and 2010 Academy Award nominee.

Gyllenhaal made his screen debut at age 10, when he played Billy Crystal's son in the 1991 comedy *City Slickers*. Five films later, in 2001, he starred in the cult hit *Donnie Darko*. He received an Academy Award nomination for Best Supporting Actor for his role as Jack Twist in *Brokeback Mountain*, the tale of a complex romance

a day and followed a kale and chewing gum diet. He shed 30 pounds. Recently, though, he says he has started to step back from this sort of self-inflicted punishment.

"I used to go so far into creating a character that it only felt legitimate if it was painful," says Gyllenhaal. "But as you grow older, you evolve, if you're open to it. Now, I feel there must be joy, there must be humility. I'm trying to cultivate more of that. The journey of making *Stronger* has taught me a lot about that."

His lessons in joy came, in part, from laughter. To Gyllenhaal's surprise, humor in the aftermath of tragedy became a dominant theme, both in the film and on set.

"It's that humor, that wonderful perspective, that got Jeff through," says Gyllenhaal. "That's a huge part of the movie, and its life-affirming tone brought a different perspective than I've ever had on events like this. We were laughing all the time."

He and Bauman even poked fun at Gyllenhaal's reputation for total



**“THAT WONDERFUL
PERSPECTIVE GOT JEFF
THROUGH”**

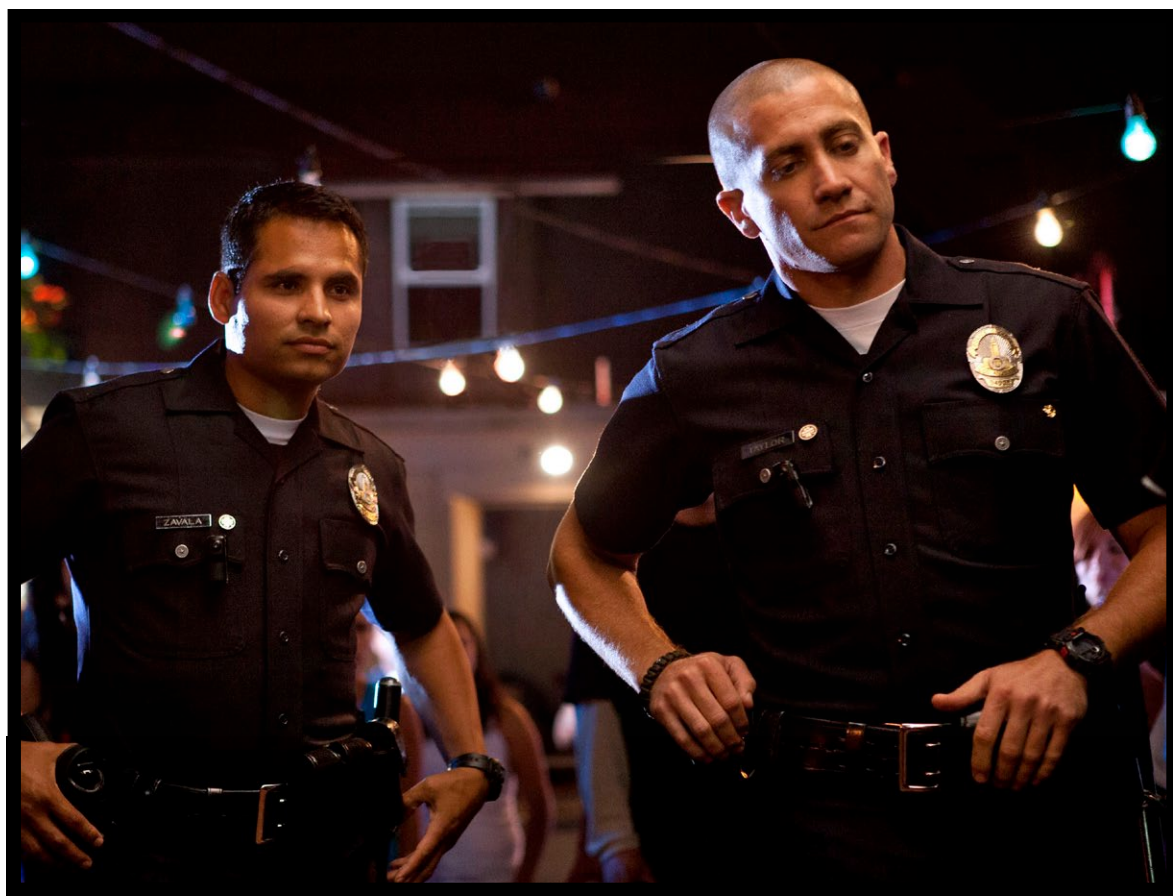


Top left: Gyllenhaal with co-star Heath Ledger in the 2005 film *Brokeback Mountain*.

Top right: In the 2013 film *Prisoners*, Gyllenhaal played Detective Loki.

Middle right: In 2014, *Nightcrawler* featured Gyllenhaal as Louis Bloom, a con man trying to break into crime journalism.

Bottom: Gyllenhaal starred in *End of Watch* alongside Michael Peña in 2012.



pair a new amputee with a peer who has had an amputation. That, says Crandell, conveys a powerful message: "When you see someone walk in the room with their prosthesis, it gives you the idea that, despite where I am right now, life is possible."

Bauman's prosthetic legs cost approximately \$100,000 each when they were fitted nearly three months after the April bombing and were among the most technologically advanced then available. Still, says Crandell, he and the other survivors—as well as anyone who faces the loss of a leg—do all the work.

"People think that when you have an amputation, technology will fix it," says Crandell. "But the wearer provides all the power. Their new legs are not robotic. They just help control the force that the wearer creates."

For the film's final moments, which portray Bauman's first steps on his new legs, Gyllenhaal spent months studying the very particular ways in which Bauman moves. He also worked with Bauman's physical therapist at Spaulding and was fitted for a pair of Genium prosthetics, identical to Bauman's. Gyllenhaal says he's awed by what amputees like Bauman must accomplish.

"Jeff had to recalibrate everything in his body and mind so that he could walk with these new legs,"

he says. "That process was very important for me to understand."

Trauma also brings with it significant, sometimes debilitating psychological fallout. For weeks, Bauman had night terrors and woke to the sound of explosions. Crandell says many of the survivors had similar experiences, symptoms of acute stress disorder, often a precursor of post-traumatic stress disorder (PTSD).

Bauman developed other, persistent troubles, such as depression and symptoms of PTSD. Sleep eluded him for three years. Last year, though, he began therapy to address his emotional injuries. It's brought him closer to his 3-year-old daughter, Nora, and enabled him to return to college this year.

"I'm working really hard at my trauma, at my depression," he says. "I'm dealing with everything head on by talking." Still, he has yet to settle fully into his new life. "It's hard to find my new normal with Jake Gyllenhaal playing me, you know?"

WORK HARD. REPEAT.

Throughout the production, Gyllenhaal ran up to 15 miles a day to keep in shape and unwind. He recognizes the irony in running while making *Stronger*, but he says that it became a way

to acknowledge the gratitude he felt that he was able to do it. He drinks copious amounts of water to stay hydrated, but his overall philosophy on diet and, in a broader sense, lifestyle, emphasizes balance. Enjoy yourself—within reason—and you will be healthier in body and spirit. Work hard, but make time to relax and rejuvenate.

"I do know that rest is really important in order to give your all, so I have started to learn how to do that," he says.

But Gyllenhaal likely will never be easy on himself. His dedication to the art and craft of acting and to the characters he portrays won't allow it. Doubt also drives him. Would he have been strong enough to face what Bauman endured? He doesn't think so. Was all the work he did to prepare for this part enough, having never lived with pain like Bauman's?

"That's what I grappled with, that I'll never be able to understand," says Gyllenhaal.

So he pushed himself as hard as he could and now has to trust that he got it right.

"It's inexplicable how much responsibility I felt and still feel towards Jeff," he says. "I think he knows that. I hope he knows that. All that matters is that he knows how much I tried."

TRAUMATIC EVENTS LIKE THE BOSTON MARATHON BOMBING OFTEN DO MORE THAN PHYSICAL DAMAGE. THEY CAN ALSO CAUSE PSYCHOLOGICAL HARM. SYMPTOMS INCLUDE:

✦ Nightmares and flashbacks that vividly recall the event.

✦ Changes in how you feel and how you view the world and other people. For example, you may feel less safe, less interested in things you once enjoyed, or numb.

✦ Avoidance of thoughts or situations that remind you of what happened.

✦ Hyper-arousal, which means you're easily startled, always on guard, and have trouble with sleep.

Symptoms like these may be normal in the first three days,

says psychiatrist and trauma specialist Eric Bui, MD, PhD, of Massachusetts General Hospital in Boston. They become a real concern if they continue for more than a month.

"That's when we call it post-traumatic stress disorder, or PTSD,"

says Bui, "and that's when we can start treatment."

The most effective treatments include:

✦ Trauma-focused cognitive behavioral therapy: Talk therapy that addresses and helps you readjust the way you think about the trauma.

✦ Medications: The most common are antidepressants such as Paxil (paroxetine) and Zoloft (sertraline).

Recognize when you need help, Bui urges: "Even if it is difficult to talk about what happened, I encourage you to seek trauma-focused therapy."




OPIOID ADDICTION

THE GENDER GAP

BY KATHERINE KAM

REVIEWED BY NEHA PATHAK, MD,
WEBMD MEDICAL EDITOR



FOR WOMEN, OPIOID ADDICTION IS MORE COMMON AND KILLS AT A HIGHER RATE COMPARED TO MEN. TWO WOMEN SHARE THEIR STRUGGLE WITH OPIOIDS.

Sarah Wilson's father was a police officer, so she was too scared to try drugs and alcohol as a teenager.

"The cops weren't going to arrest me," she says. "They would have called my dad."

Wilson grew up, married, had children, and landed a job as a courthouse secretary in Jacksonville, Florida. "I worked for the judge," she says, a job that required "staying on the straight and narrow with the person that's enforcing the laws in your town."

In 2008, though, her life changed after a drunk driver crashed into her car. The accident—and the pain that followed—eventually trapped Wilson in an epidemic of prescription opioid misuse that has also hit women from all walks of life.

FROM PRESCRIPTION TO ADDICTION

Doctors began prescribing these powerful opioid painkillers, such as oxycodone, in the 1990s. Opioid drugs also include hydrocodone, morphine, fentanyl, and

codeine, among others. Heroin, which is illegal, is an opioid, too.

Prescription opioids can be safe when doctors prescribe them, and patients take only a short course. They're effective for severe pain from surgery, cancer, serious sports injuries, and other conditions. But addiction can happen even when the drugs are prescribed appropriately.

That was true in Wilson's case. The car crash left her with spine and nerve damage, migraines, and pain. When pain-relieving injections became too expensive, her doctor switched her to hydrocodone pills. Wilson wasn't concerned at the time.

"I thought that if I was just doing what the doctor said, I'd be fine," says Wilson. "I wasn't doing anything illicit."

The injuries forced her to quit her job. She stayed at home to care for her four children, now ages 15, 13, 6, and 5. But the opioids made it hard for her to remain energetic and engaged with her family. "I slowed down. My reactions were not that fast," she says.



WOMEN TEND TO HAVE MORE CHRONIC PAIN THAN MEN AND ARE **MORE LIKELY TO BE PRESCRIBED OPIOIDS**, STAYING ON THEM AT HIGHER DOSES FOR LONGER PERIODS.

After the birth of her youngest child a few years after the crash, Wilson tried to stop the pills on her own. “I didn’t want to take them anymore,” Wilson says. “I wasn’t the mom that I was before. I became isolated and didn’t want to go out anymore. I was kind of miserable.”

But after 12 hours without the drug, she felt ill, as if coming down with the flu. She took a pill, and the sick feeling went away. “Then it hit me,” she says. “This is not normal.”

Wilson didn’t tell her doctor that she had become dependent, though. The stigma was too great. “I was embarrassed,” she says.

At the height of her addiction, Wilson was taking about 30 pills a day. She pawned her possessions and jewelry stolen from her mother to buy \$3,000 to \$4,000 of pills per week.

“When my parents figured out that stuff was missing from their home, they actually accused my

husband,” she says. “I immediately said, ‘No, it is not him, it is me. I’ve been stealing from you and here’s the reason why.’” Her parents were shocked.

Without that confrontation, she’s not sure when she would have sought help, she says: “For all I know, I wouldn’t even have survived.”

Wilson, now 40, started taking buprenorphine, one of several drugs used to treat opioid addiction, first in pill form and now through an implant in her arm. She

and her husband lost their home, in part because of Wilson’s job loss and addiction, but she feels fortunate that she didn’t overdose and die.

Like Wilson, women tend to have more chronic pain than men and are more likely to be prescribed opioids, staying on them at

higher doses for longer periods. Other important gender differences exist, too. Research shows that women become dependent on opioids more quickly than men, perhaps because of differences in body fat, metabolism, and hormones.

“There are real biological differences in the way in which we handle these chemicals,” says Andrea Barthwell, MD, an addiction specialist who is a member of a nonprofit organization called FORCE: Female Opioid-Addiction Research and Clinical Experts.

Women also tend to crave opioids more often than men.

Further, psychological and emotional distress, sometimes from violence or sexual abuse, are risk factors for women to misuse opioids, but not for men. Research also suggests that women are more likely to use prescription opioids to relieve anxiety or stress.

RELAPSE

Kendra McGuire, a 50-year-old mother of three in the upscale town of Lexington, Massachusetts, grew up with alcohol and drug addiction on both sides of her family, she says. When she was in ninth grade, a classmate raped her after a date to a hockey game. Traumatized and ashamed, she didn’t tell anyone but escaped as many in her family had done: through alcohol, marijuana, and cocaine. “I was medicating myself,” she says.

But she refused to try heroin. “I had this line that I wasn’t going to cross,” she says. During a party in college, though, she snorted a substance that she believed was cocaine, but turned out to be heroin. “I loved the way it felt,” she says. “My addiction to opiates started.”

After two years of heroin addiction, she went through drug treatment successfully. “I got clean and I got married and I started my life again sober,” says McGuire, an event planner who now has 15-year-old twins and a 16 year old.

But her battle against opioid addiction resurfaced when she was pregnant with the twins. She developed extreme abdominal pain that baffled her doctors.

Unsure of the cause, they gave her a choice to end the pregnancy or to take pain medication that contained oxycodone, she says. Unwilling to part with the babies, she opted to take the opioid medication under an obstetrician’s supervision. (After she gave birth, doctors discovered that the pain stemmed from a rare cause: a hidden, infected third ovary.)

She became dependent once again; the prescription opioid felt exactly the same as heroin. “My brain didn’t know the difference,” she says. After she gave birth, she tapered off the drug.

For McGuire, though, opioid addiction has proven a fearsome foe. Four years ago, she felt overwhelmed by her responsibilities,

including working and raising children. She relapsed again on prescription opioids and heroin and ended up leaving home for a drug treatment program. “When I relapse, I’m not functional,” she says. “I become selfish, reckless, irritable, discontent. There’s no question that I can’t hold it together. I can’t hide it.”

Her children, then preteens, were furious with her. She felt unfit to parent and feared that her children would be taken away from her. Family members stepped in to help care for them, but McGuire still feels contrite: “It’s a real source of regret and shame for me. I really try to step up and be the best mother that I can at this point.”

A PUBLIC HEALTH ISSUE

McGuire had family help, but access to childcare is “the most significant barrier to women getting treatment,” says Shruti Kulkarni, policy director for the Center for Lawful Access and Abuse Deterrence. Also, in many states, pregnant women or mothers who use illicit drugs can be reported to child protective services and lose child custody.

Women (and men) aren’t well served when opioid addiction is treated as a criminal issue or a “moral failing” instead of a public health issue, Kulkarni says: “Opioid use disorder is a chronic, relapsing disease of the brain. It should be treated like any other chronic disease like diabetes or asthma—with evidence-based

treatments, which in this case include medications.”

Kulkarni agrees that opioids play an important role in treating severe pain, but she’d like doctors to become educated about prescribing other pain medications before using them.

If doctors must prescribe opioids, the CDC recommends they give the lowest effective dose possible and monitor patients carefully.

Four years have passed since McGuire recovered from her last relapse. Now, she believes that abstinence, or simply planning to avoid opioids, isn’t enough deterrence. She needs to continually confront the deeper psychological issues that drive her to misuse drugs, she says.

She needs support to avoid relapse and plans to avoid prescription opioids unless absolutely necessary. If she needs them for severe pain, she’ll have a trusted person hold onto the pills and will not take the drugs for extended periods. “I have to be so careful,” she says.

Wilson believes that her addiction is a chronic brain disease and that she’ll need to remain on a low dose of buprenorphine for the rest of her life. That means constant monitoring by her doctor, as the drug also has risks for addiction along with other side effects.

“I was willing to try anything because I just wanted to get better, and I haven’t looked back since,” she says. “I haven’t relapsed.”

“OPIOID USE IS A CHRONIC, RELAPSING DISEASE OF THE BRAIN. IT SHOULD BE TREATED LIKE ANY OTHER CHRONIC DISEASE.”



BY THE NUMBERS

MORE THAN

71,800

Number of women in the U.S. who have **died from prescription opioid** overdoses since 1999.

400%

The **percentage by which the death rate** for prescription opioid overdoses **increased for women** between 1999 and 2010, compared to 237% for men.

AGES

45 TO 54

The age range among women who face the **greatest risk of dying** from prescription opioids.

3 MINUTES

The **frequency with which a woman goes to the emergency room** for a prescription painkiller misuse or abuse.



THE --- DIET DRINK --- DEBATE

BY MATT McMILLEN // REVIEWED BY BRUNILDA NAZARIO, MD, WEBMD LEAD MEDICAL DIRECTOR



IS DIET SODA BAD FOR YOUR HEALTH?

About one in five Americans drinks diet soda every day, according to the CDC. What impact does that have on their health?

Numerous studies during the past several years have reported links between diet soda and weight gain, diabetes, heart problems, and other health issues. Most recently, headlines sounded alarms about a higher chance of dementia and stroke among diet soda drinkers.

That may sound worrisome, but health experts say you don't need to clear the diet drinks out of your fridge just yet. Many questions must be answered before they know whether diet soda raises your risk of medical problems. Here's a look at some of the most-reported health angles.

DEMENTIA AND STROKE

Boston University researcher Matthew Pase, PhD, and colleagues examined 10

years of health information from nearly 3,000 American adults older than age 45 to count the number who had a stroke. They did the same for nearly 1,500 American adults older than 60 to determine how many developed dementia.

After accounting for a variety of factors that could influence their health, such as age, physical activity, and waist size, the researchers found that diet soda drinkers nearly tripled their odds of stroke and dementia, compared with those who drank no diet soda.

Scary, right? Not necessarily, says Pase. Only 81, or 5%, of the diet soda drinkers in the study were diagnosed with dementia, and only 97, or 3%, had a stroke.

"At the end of the day, we're talking about small numbers of people," says Pase. "I don't think that people should be alarmed."

Pase also makes clear that his study's results, published in April in the journal

“
**IF YOU DRINK
DIET SODA, THAT
WON'T MAKE UP
FOR EATING A
SUPER-SIZE FAST
FOOD MEAL.**

Stroke, don't explain the link. Do diet sodas cause health problems like stroke and dementia? Or do people who have higher chances of developing such health problems choose to drink diet soda, perhaps to try to cut sugar and calories in their diets? Pase can't say.

OBESITY AND DIABETES

Other studies have also tied health concerns to diet soda broadly rather than to specific artificial sweeteners. (The FDA has approved six for use in drinks and food.) Like Pase's study, they could not show whether diet soft drinks were to blame.

In 2014, a study reported that overweight and obese people who drank diet soda ate between 90 and 200 more calories of food per day than those who drank regular sodas.

Also in 2014, a review of several studies, published in the *British Journal of Nutrition (BMJ)*, revealed that people who drink diet soda raise their risk of type 2 diabetes by about 13% for each 12-ounce can they drink each day.

A 2015 *BMJ* review of studies also found that a single daily serving of diet soda boosted the chance of diabetes by 8%.

A 2012 study found that daily drinkers of diet soda who were, on average, 69 years old had a 43% higher chance of heart attack, stroke, or dying as a result of blood vessel problems.

Israeli researchers who studied 381 adults without diabetes showed that diet soda drinkers had many factors that raised their odds of having type 2 diabetes, including higher weight and belly fat, higher levels of blood sugars, and more glucose intolerance. Their 2014 study suggested a cause: Artificial sweeteners affected gut bacteria, which in turn affected metabolism. But that connection was only noted in mice.

The authors of these studies don't know the reasons for the links between diet soda and health concerns, but they describe a few possible explanations. In addition to potentially changing gut bacteria, artificial sweeteners in diet soda may stimulate the appetite, which could lead to overeating.

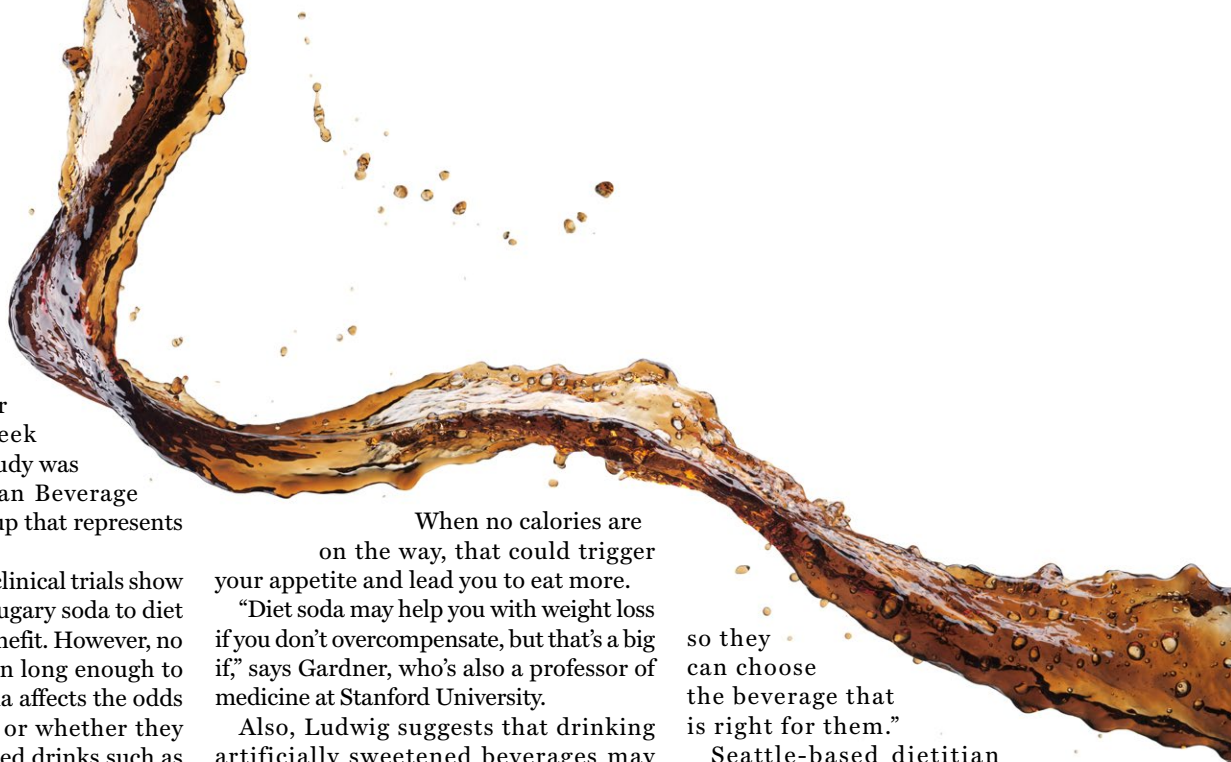
David Ludwig, MD, PhD, says that studies like these raise important concerns about diet soft drinks, but they're not proof that people need to worry.

"We need more clinical trials," says Ludwig, an endocrinologist and professor of nutrition at the Harvard T.H. Chan School of Public Health, and author of *Always Hungry*.

Ludwig conducted a test in 2012. He randomly divided 224 overweight or obese teens into two groups. One group continued their normal habit of drinking sugary soda; the other group switched to diet soda. After a year, the diet soda group had dropped a little bit of weight, compared with those who drank regular sodas. By the two-year mark, however, the two groups were about the same.

In another clinical





trial, people who drank diet soda lost about five pounds more than water drinkers over a 12-week period. However, that study was funded by the American Beverage Association, a trade group that represents soda makers.

Overall, says Ludwig, clinical trials show that if you switch from sugary soda to diet ones, your weight will benefit. However, no clinical trial has yet been long enough to answer whether diet soda affects the odds of developing diabetes or whether they are as safe as unsweetened drinks such as water. Diabetes and obesity, Ludwig says, are the primary focus of concerns about diet soda.

WHY DIET SODA MAY DERAIL YOUR DIET

One possible explanation for the link between diet sodas and weight gain and diabetes risk: The sweeteners in diet soft drinks may trick you into overcompensating, eating a greater number of calories than you normally would, says Christopher Gardner, PhD, director of nutrition studies at the Stanford Prevention Research Center. This can happen in one of two ways.

The first, he says, is psychological. If you choose a no-calorie diet soda over a regular soda, you may reward yourself later in the day with a treat. And that treat may have more calories than you saved by avoiding the sugary soft drink.

Your brain chemistry may play a role as well. The sweetness in the diet soda may prime your brain to expect a calorie boost.

When no calories are on the way, that could trigger your appetite and lead you to eat more.

"Diet soda may help you with weight loss if you don't overcompensate, but that's a big if," says Gardner, who's also a professor of medicine at Stanford University.

Also, Ludwig suggests that drinking artificially sweetened beverages may affect your taste buds in ways that make you less likely to choose healthy foods.

"You may find fruit less appealing because it's less sweet than your soda, and vegetables may become inedible," he speculates.

However, both Gardner and Ludwig acknowledge that their theories are just that: theories.

TO DRINK OR NOT TO DRINK

The American Beverage Association said in a statement that the FDA and other health organizations consider artificial sweeteners safe, and no research has shown otherwise: "Scientific evidence does show us that beverages containing these sweeteners can be a useful tool as part of an overall weight management plan. America's beverage companies support and encourage balanced lifestyles by providing people with a range of beverage choices—with and without calories and sugar—

so they can choose the beverage that is right for them."

Seattle-based dietitian Angel Planells encourages people to choose water over soda of any kind. But, he says, diet soda can fit into your meal plan as long as you make other healthy food choices.

"If you drink a diet soda, that won't make up for eating a super-size fast food meal," he says.

Breaking the diet soda habit, if you choose to do so, can be tough, he adds. He recommends starting with baby steps rather than going cold turkey. If you drink five or six diet sodas a day, drop down to two, to three, and then to one. Just be sure to drink water so you stay hydrated.

Ludwig advises people who want to get off sugary drinks to consider diet soda a temporary choice.

"I tell my patients to continue making the transition to unsweetened beverages," he says. "We know that diet sodas are better than sugary beverages in terms of body weight, but we don't know if better is actually good."

BY THE NUMBERS

TEENAGE GIRLS
DRINK NEARLY
TWICE
AS MUCH DIET SODA
AS TEENAGE BOYS

ONE IN 10 AMERICANS DRINK MORE THAN
16 OUNCES OF DIET SODA A DAY

20%
OF AMERICANS DRINK DIET SODA
ON ANY GIVEN DAY

SALES OF
LEADING
DIET SODAS
DROPPED AS
MUCH AS
9%
IN 2016

62%
OF AMERICANS SAY
THEY ACTIVELY AVOID
DIET SODA

61%
AVOID REGULAR SODA

TOP PICK

Fun Bunch

Juicy, jewel-hued grapes are the original simple snack

CRAVING CANDY? KEEP RED, purple, or black grapes within reach. Give them a rinse and start nibbling. Low in calories, grapes include vitamins K (key for bone health), C (good for healthy skin), and B2 (which helps convert food to fuel). They offer a juicy crunch and sweet-tart flavor, along with protective plant compounds. For example, red, purple, and black grape skins are loaded with resveratrol, a polyphenol with antioxidant and anti-inflammatory properties that may help prevent heart disease and block the damage that triggers cancer cell growth. To keep grapes fresh, store them in the fridge, and rinse well and pat dry just before eating. (This removes the insecticides used on most supermarket grapes.) For a cooling end-of-summer snack, pop clean grapes in the freezer. Or halve them and toss with lettuce, chicken, or couscous salads.

—ERIN O'DONNELL

3 WAYS

Chicken Breast

It's hard to beat boneless, skinless chicken breast for healthy meals. Just four ounces provides more than 70% of an adult's daily value of protein, with very little saturated fat in the deal. Try three fresh ways to enjoy an old favorite.



1

THE SIMPLE SUPPER

Mediterranean Chicken and Grain Bowl

This recipe involves a pleasing array of colors and textures, but it's very flexible. Swap ingredients with other whole grains, beans, or vegetables, depending on what you have on hand.

→ THE MIX

Chicken breast + farro, lemon, yellow beets, baby spinach, grape tomatoes, chickpeas, feta cheese



MAKE IT Sauté 4 chicken breasts in olive oil until done. Cut into strips. Whisk together 2 tbsp each of olive oil and lemon juice with salt and pepper. Toss with 2 cooked, chopped yellow beets, 1 cup chopped baby spinach, 1 cup

halved grape tomatoes, 2 chopped scallions, and ½ cup chickpeas. Divide 2 cups of cooked farro among 4 bowls, top with veggies and chicken, and sprinkle with a little feta cheese. **SERVES 4**

PER SERVING (ABOUT 2 CUPS PER BOWL) | 401 calories, 32 g protein, 35 g carbohydrate, 15 g fat (3 g saturated fat), 73 mg cholesterol, 6 g fiber, 6 g sugar, 367 mg sodium; calories from fat: 34%

2

THE SIZZLING SALAD

Grilled Chicken Milanese

This recipe pairs chicken with September favorites, including basil and fresh tomatoes, for a fresh, light meal. Pounding chicken breasts until thin helps them cook quickly. Place breasts between two sheets of wax paper, and pound away with a rolling pin or heavy skillet until about ½-inch thick.

→ **THE MIX**

Chicken breast + roma tomatoes, olive oil, balsamic vinegar, baby arugula, shaved Parmesan, basil



MAKE IT Pound 4 chicken breasts until thin, and grill until cooked. Halve 8 roma tomatoes and roast on grill until just soft. Combine equal parts olive oil and balsamic vinegar with salt and pepper, and toss with 6 cups baby arugula.

Top each breast with salad and tomatoes. Garnish with shaved Parmesan and fresh basil leaves. Serve immediately. **SERVES 4**

PER SERVING (1 CHICKEN BREAST, 1½ CUP SALAD, 2 TOMATOES) | 335 calories, 43 g protein, 7 g carbohydrate, 14 g fat (3 g saturated fat), 101 mg cholesterol, 2 g fiber, 5 g sugar, 399 mg sodium; calories from fat: 38%

3

THE SAUTÉ WITH A TWIST

Chicken Medley with Cauliflower “Rice”

This dish features tasty cauliflower “rice,” made by grating raw cauliflower on a box grater to create rice-like pieces. After grating, prepare the cauliflower as described below. Prefer not to grate your own? Some supermarkets carry pre-made cauliflower rice in the frozen veggies section.

→ **THE MIX**

Chicken breast + red pepper, onion, snow peas, fresh corn, garlic, cilantro, cauliflower



MAKE IT Sauté 2 lbs chopped chicken breasts with a drizzle of olive oil until done. Remove chicken and sauté chopped red pepper, onion, snow peas, and corn with garlic, salt, and red pepper flakes until crisp tender. Remove pan from heat. Stir in

chicken and fresh cilantro. Next, microwave 16 oz grated cauliflower for 4 minutes with 1 tbsp olive oil and ½ cup chicken stock. Divide cauliflower among 4 dishes, top with chicken, and garnish with cilantro. **SERVES 4**

PER SERVING (ABOUT 2½ CUPS) | 320 calories, 31 g protein, 22 g carbohydrate, 13 g fat (2 g saturated fat), 65 mg cholesterol, 6 g fiber, 8 g sugar, 318 mg sodium; calories from fat: 36%

REVIEWED BY Hansa Bhargava, MD
WebMD Senior Medical Director



1



2



3



5



4

1. CHANTERELLES

"Their woody flavor reminds me of Maine, where I foraged for them. Sauté, then toss with pasta or over scrambled eggs on grilled or toasted bread."

2. SHIITAKES

"I love these fresh, but also look for them dried and powdered. They're amazing. Their delicate flavor makes them an ideal addition to homemade chicken noodle soup."

3. MAITAKES

"Intensely flavored, these taste best when nice and crispy. Think adult candy. They are great on their own or served with lemon, salsa verde, and brown butter."

4. TRUMPET ROYALE (AKA KING TRUMPET)

"Their fleshy texture and deep flavor make them an ideal meat substitute. A favorite preparation: roasted, then tossed with garlic, breadcrumbs, parsley, lemon juice and zest, and capers."

5. CREMINIS

"Versatile, always available, and more richly flavored than their cousin, the common white button mushroom. Best grilled or roasted, creminis belong on pizza or in pasta."

FOOD 101

Mushroom Magic

These edible fungi, in a variety of funky shapes and inviting flavors, pack loads of B vitamins and a solid dose of potassium

GROWING UP IN WISCONSIN, JOSHUA McFADDEN, CHEF/OWNER OF AVA GENE'S IN Portland, Oregon, and author of *Six Seasons: A New Way with Vegetables*, foraged for morel mushrooms with his grandfather. His love for mushrooms has never wavered: "They have a special place for me." Seek out fresh mushrooms at your local farmers market, says McFadden, and treat them gently. These five are among his favorites.

➔ Search for the article [Raw vs Cooked Veggies: Which Is Healthier?](#) at WebMD.com.

FOR THE WEEK

1 Food, 5 Meals: Tomatoes

SURE, THEY PLAY A SUPPORTING ROLE IN BLT SANDWICHES AND SALADS, BUT TOMATOES HAVE THE STAR POWER TO SHINE AS A LEAD INGREDIENT. THESE FIVE WEEKNIGHT DINNERS PUT TOMATOES IN THE SPOTLIGHT.



MONDAY

CREAMY TOMATO SOUP

Sauté a chopped onion in olive oil over medium heat. Add a couple cloves of garlic, a pinch of thyme, salt, and pepper. Add a pound of coarsely chopped tomatoes and cook for several minutes until tomatoes release their juices. Add two cups of broth and cook for 10 more minutes. Remove from heat and blitz with an immersion blender. Finish with a dollop of plain Greek yogurt.

WEDNESDAY

GOAT CHEESE TOASTS WITH ROASTED CHERRY TOMATOES AND WHITE BEANS

Roast a pint of cherry tomatoes with olive oil, herbes de Provence, and a can of drained and rinsed white beans at 350 for about 20 minutes, until tomatoes burst. Toast slices of good-quality bread, spread with goat cheese, and serve with tomato/bean mixture.



TUESDAY

NO-COOK TOMATO SAUCE

Using a box grater, coarsely grate a pound of tomatoes into a large serving bowl. Whisk in 2 tbsp olive oil, 1 minced clove of garlic, a pinch of salt, and ¼ cup of coarsely chopped basil and/or parsley. Cook ½ pound of pasta according to package directions. Drain, toss with sauce, and serve.



STIR-FRIED TOMATOES AND EGGS

In a wok, heat 1 tbsp canola oil over medium-high heat. Add four beaten eggs and a pinch of salt and cook for a couple minutes. Add two large chopped tomatoes, with a minced clove of garlic, some grated ginger, and a pinch of sugar. Continue to cook for several minutes, until tomatoes release their juices. Top with scallions and serve with a whole grain, such as hot cooked brown rice or farro.

FRIDAY

GRILLED SKIRT STEAK PANZANELLA

Brush 1 pound of skirt steak with canola oil, sprinkle with salt, garlic powder, and onion powder. Grill for 3–4 minutes per side. Grill 4 slices of ciabatta or sourdough bread for 1–2 minutes per side. Cube steak and bread and toss with a pound of chopped tomatoes, a chopped cucumber, a couple sliced scallions, and a dressing of ¼ cup olive oil, 1 tbsp balsamic vinegar, and 1 tsp Dijon mustard.

KIDS' BOX

After-School Snacks 101

GETTING HUNGRY KIDS TO EAT HEALTHY IS EASIER THAN YOU THINK



When kids are at their hungriest (after school, before dinner) they're most likely to eat whatever you put in front of them. Take advantage of their after-school appetites by offering healthy snacks that complement their other meals. Stock the fridge with cut-up vegetables, yogurt dip, and string cheese, fill the cupboards with whole-grain crackers, popcorn, and nut butters, and top the fruit bowl with clementines, grapes, and apples. Occasional treats are OK, too—serve cookies with milk sometimes, but don't make it the standard fare.

CUTTING EDGE

About 22,000 women will develop ovarian cancer this year. More than half that many will die from the rare condition. Because most diagnoses come after the cancer is advanced, few women reach a complete cure. Those who do are likely to relapse. **But recent innovations may change the prognosis.**

AFTER MANY YEARS WITH THE SAME treatment options, an influx of new drugs in the last few years called PARP inhibitors have helped treat the condition as well as delay recurrences.

Doctors in Buffalo have discovered a possible new target for ovarian cancer treatment. A target is a feature of a tumor that a customized medication could shut off to prevent further growth of the cancer. In a study of more than 1,000 women with ovarian cancer, those whose tumors produced the NY-ESO-1 antigen—a substance that should trigger an immune response—were more likely to die from their cancer. But women with this type of tumor who received a vaccine that targets the antigen outlived peers who had any

type of ovarian tumor.

Scientists at Georgetown University have discovered that many types of cancer, including ovarian cancer, could be the result of a genetic malfunction—an inability of DNA to repair itself as it should and prevent cells from mutating into cancer cells. Better understanding of this genetic glitch could lead to drugs that target and correct it.

In Seattle, researchers are trying to program human immune cells called T-cells to kill ovarian cancer cells. The treatment already helps people with blood cancers, such as leukemia. T-cell therapy for ovarian cancer has worked in preliminary lab experiments, but it still has a long journey to human clinical trials.

—SONYA COLLINS



This content is created and controlled by WebMD's editorial staff and is brought to you by Sleep Number

SPOTLIGHT

Improve Your Sleep

Do you miss out on quality shut-eye? These tips and strategies may help.



IMPROVE YOUR SLEEP, IMPROVE YOUR HEALTH. GOOD SLEEP HELPS REDUCE your risk of chronic health problems, like type 2 diabetes and heart disease. It also boosts your mood, gives you energy, and makes you more productive, says neurologist Alon Avidan, MD, MPH, director of the UCLA Sleep Disorders Center.

"We see all these positive benefits when people get quality sleep," Avidan says.

Unfortunately, almost half of American adults say they sleep poorly. Problems like insomnia and sleep apnea, when troubled breathing

repeatedly interrupts sleep throughout the night, prevent people from getting sufficient rest. Though common, most sleep problems go undiagnosed.

New technology, such as smart phone apps, programs, and wearable devices, may help change that, says Avidan. His patients frequently bring their sleep data to him for review. It shows when during the night they're immobile, which may indicate sleep, and when they move, a possible sign of wakefulness.

If accurate, such information may help to identify sleep problems as well as possible underlying causes. For example, early morning wakefulness has been linked to depression, which can impair sleep.

However, Avidan cautions, sleep tracking technology needs more study before it can be used to evaluate and manage sleep problems like insomnia. Such research is currently underway.

In the meantime, sleep trackers and the resulting data does play an important role, says Avidan. "They get people talking about sleep," he says. "And when people pay attention to their sleep patterns, they're more open to discussing their sleep and more motivated to fix problems with their sleep."

Those problems can be fixed. One effective solution for insomnia, for example, is cognitive behavioral therapy, a type of talk therapy that addresses habits, behaviors, and thoughts that spoil sleep. And yes, says Avidan, there are apps for that.

4 TIPS

DON'T ACCEPT SECOND-RATE SLEEP. SLEEP EXPERT **ALON AVIDAN, MD**, OFFERS THESE TIPS TO IMPROVE YOUR SHUT-EYE.

TRACK YOUR PATTERNS

Keep track of your sleep—and when and how often any sleep troubles occur. Share this information with your doctor.

GET HELP

If you have had long-term difficulties sleeping, realize you may not be able to fix the problem on your own.

DON'T SETTLE

Your doctor may not recognize sleep-related symptoms. If so, get a second opinion or a referral to a specialist.

BE PATIENT

Quick fixes don't exist. Effective insomnia therapy may take several weeks.

HEALTHY LIVING

Menopause Primer

What is it? When does it start? How do you know? Sort out the myths from the facts about menopause and understand what to expect.

TODAY, MORE THAN 2 MILLION WOMEN IN THE UNITED STATES ENTER menopause every year. And because they live longer than ever—a woman who reaches age 54 has an average life expectancy of 84.3—many American women will live at least three decades after reaching menopause.

What is menopause? Officially, it's defined as the point when your menstrual period has stopped, which typically happens around your late 40s or early 50s. Perimenopause is the stage of life leading up to menopause, when your periods change.

"The very first symptom of oncoming menopause is irregular menstrual cycles," says Rogerio Lobo, MD, Professor of Obstetrics and Gynecology at Columbia University Medical Center in New York. "The time between periods will get longer, and a woman may miss some periods. Some women may have the opposite—excessive bleeding, since the uterine lining gets thick because they are not ovulating."

Can you tell in advance—in your 20s or 30s—when you'll reach menopause? Not for certain, but your mother's age at menopause is a good clue. "This is probably the best predictive factor we have," says Lobo. A particularly strong predictor is if her menopause was early. Women who smoke also tend to reach menopause one to two years earlier than women who don't smoke.

When you've gone at least six months without a period, you're officially in menopause. And this is usually the time when hot flashes and other menopausal symptoms, like mood changes and sleep disturbances, tend to appear. "It's in that six-month period around the time of the last menstrual cycle that hormone levels really crash, which precipitates symptoms," Lobo says.

Not everyone has those symptoms—in fact, about 20% of women report that they never noticed hot flashes or any other typical menopause signs. But for those who do, a recent study shows that those symptoms last longer than doctors previously thought. Called the SWAN study, it found that moderate to severe menopausal symptoms persist for an average of 7.4 years. "So you may have no

BY THE NUMBERS

51

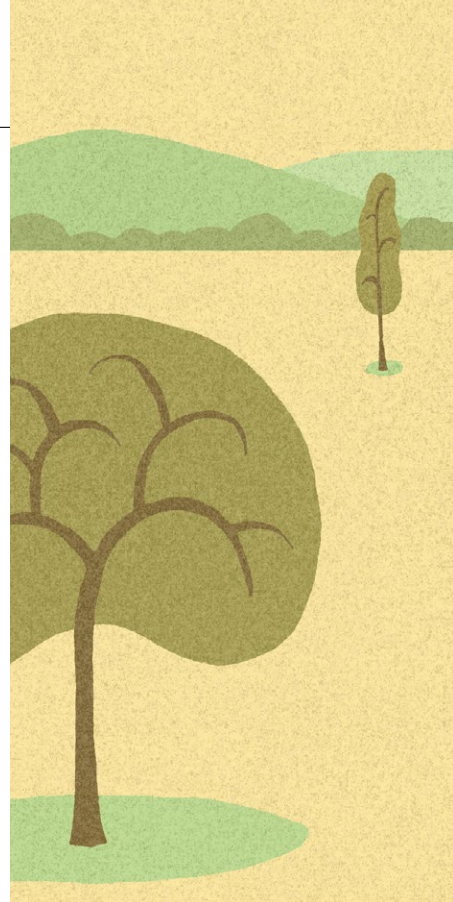
The average age of onset of menopause for women in the United States

6,000

Number of U.S. women who reach menopause every day

80%

Percentage of women reporting no decrease in quality of life after menopause





“If you’re a symptom-prone person—which the majority of women are—you can expect those symptoms for about seven years or so.”

symptoms at all, but if you’re a symptom-prone person—which the majority of women are—you can expect those symptoms for about seven years or so,” Lobo says. “In some women, they can last much longer, for 10 to 15 years or more, and we don’t really understand why.”

If you’re one of those women, estrogen supplementation may be the most effective treatment. After a large government study called the Women’s Health Initiative, released in 2002, reported an increased risk of heart attacks, strokes, blood clots, and breast cancer in women who took estrogen supplements, doctors stopped prescribing this treatment for many women. But they now say those findings were misunderstood. Many of the women in the study were in their 60s and 70s, well past the age when menopause occurs and symptoms are strongest and most common.

“We now know that the younger you are, the better you do with estrogen supplementation,” says Lobo. In fact, an older Danish

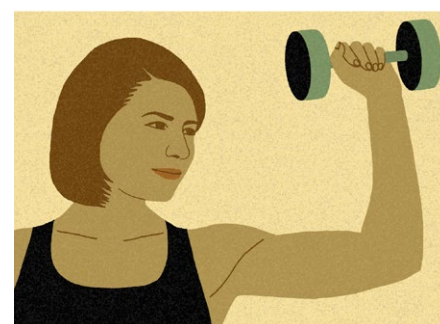
study of more than 1,000 healthy women in their 40s and 50s who had recently entered menopause found that estrogen supplements significantly reduced their risk of death, heart failure, or heart attack, without any apparent increase in risk of cancer, blood clots, or stroke.

“If a woman entering menopause has significant symptoms, she need not worry about taking estrogen, as long as she’s monitored,” Lobo says. (However, a few women shouldn’t take estrogen—primarily, those who’ve had breast cancer, uterine cancer, or heart disease. Instead, a class of antidepressants called SSRIs can be helpful.)

After menopause, many women also have vaginal dryness, which can lead to painful intercourse. “You don’t have to just live with it,” Lobo says. “There are many topical estrogen treatments, like creams and vaginal tablets, that relieve symptoms without putting estrogen into the bloodstream. These are safe even for women who’ve had breast cancer.”

Staying Healthy After Menopause

ONCE YOU ENTER MENOPAUSE, YOU’RE AT INCREASED RISK FOR TWO COMMON HEALTH PROBLEMS: OSTEOPOROSIS (BONE LOSS) AND HEART DISEASE. TAKE STEPS TO KEEP YOURSELF HEALTHY.



Don’t smoke. Smoking increases your risk of a number of health problems, including heart disease and stroke. It’s never too late to quit.

Keep your bones strong with regular, weight-bearing exercise—such as walking, jogging, or dancing—at least three days a week.

Aim for plenty of calcium and vitamin D in your diet with dairy products, fatty fish, and fortified foods like cereals and orange juice. Ask your doctor if you need any additional supplements.

Get regular pelvic and breast exams, Pap tests, and mammograms. And if you notice unusual changes, such as a lump in your breast, contact your doctor.

→ Search for the tool **Seasonal Allergy Symptoms Nationwide** at WebMD.com.

REVIEWED BY *Neha Pathak, MD*
WebMD Medical Editor

HEALTH HIGHLIGHTS

Autumn Allergy

Fall pollen making you miserable?
Try this advice to get relief.



→ **Venturing Out?**
Try to wait until after 10 a.m. to avoid peak pollen levels.

10 Ways to Cope

BEAT ALLERGIES WITH THESE LIFESTYLE TIPS

- 1. STAY INDOORS**
Fall pollen peaks before 10 a.m., so spend mornings inside when possible.
- 2. COOL OFF**
Crank up the A/C and close the windows to keep the pollen out.
- 3. COVER UP**
When you rake leaves or garden, wear a pollen mask.
- 4. CLEAN UP**
After being outdoors, leave your shoes outside, then shower, shampoo, and change clothes.
- 5. CHECK IN**
See an allergist to discuss the best treatments for you.
- 6. CLEAR THE AIR**
Use a high-efficiency particulate absorber (HEPA) air purifier at home.
- 7. GET STUCK**
Try acupuncture. Some research suggests it provides allergy relief.
- 8. HIRE HELP**
If possible, enlist someone else to do your yard work.
- 9. FLUSH IT OUT**
Use a Neti pot or other saline rinse daily to relieve nasal congestion.
- 10. STAY INFORMED**
Check your local weather forecast for pollen and mold counts.

EXPERT TIPS

“As the weather cools, dust mites become more prominent indoors. If you have a dust mite allergy, use zippered protective covers on your pillows, mattresses, and box springs. Keep stuffed animals off the bed and wash your bedding weekly in hot water. Also, turn off your humidifier.”

Sherry Farzan, MD
allergist and immunologist, Northwell Health,
Great Neck, New York

“Severe allergy sufferers should see their doctor or allergist prior to the start of the allergy season. Knowing your triggers and the proper medications and inhalers to use can prevent allergy and asthma problems before they even begin.”

Marc Meth, MD
Century City Allergists, Los Angeles

“Fall is a colder, wetter season and with it comes mold—so be sure to reduce moisture in your home to prevent mold growth. One way to do so: Invest in a dehumidifier, run it continuously, and don’t forget to empty and clean it often to prevent mold from growing in it.”

Mitchell Grayson, MD
chair, Asthma and Allergy Foundation of
America’s Medical-Scientific Council and
allergist at Nationwide Children’s Hospital,
Columbus, Ohio

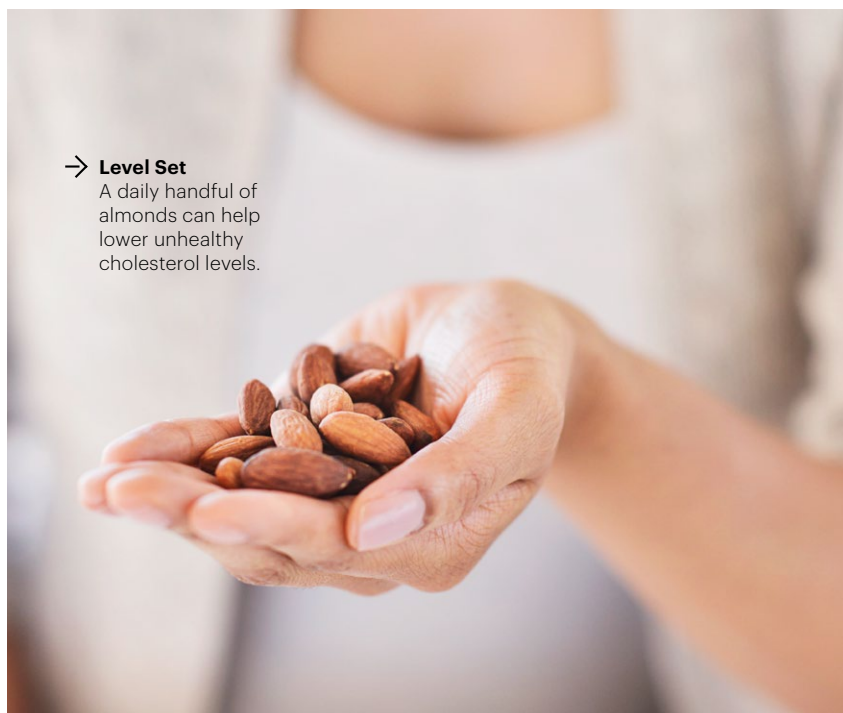
QUIZ

Cholesterol Check

Do you have high cholesterol? If so, your diet and other lifestyle habits could be to blame. Take this quiz to see how to bring your numbers into a healthy range.

→ Level Set

A daily handful of almonds can help lower unhealthy cholesterol levels.



ASK YOUR DOCTOR

Q How does my cholesterol level affect my heart disease risk?

High LDL cholesterol increases your odds of getting heart disease. Other factors—like high blood pressure, smoking, and a family history also play into your risk.

Q What is my cholesterol goal?

Ideally, you want to keep your total cholesterol under 200 milligrams per deciliter (mg/dL) and your LDL cholesterol below 100 mg/dL.

Q What changes should I make to my diet?

Eat more cholesterol-lowering foods like fatty fish, nuts, whole grains, fruits, and vegetables. Limit fatty and processed red meats, sweets, and fried foods.

Q Do I need cholesterol-lowering medicine?

If diet and exercise don't lower your LDL cholesterol enough and you're at high risk for a heart attack or stroke, your doctor might recommend a cholesterol-lowering statin drug.

Quiz

1

I often eat red meat and whole-fat dairy products.

☐ YES

☐ NO

2

I eat foods rich in plant sterols and stanols.

☐ YES

☐ NO

3

Nuts are a part of my daily diet.

☐ YES

☐ NO

4

Fish is on my plate at least twice a week.

☐ YES

☐ NO

5

I exercise for 30 minutes on most days of the week.

☐ YES

☐ NO

6

I smoke cigarettes.

☐ YES

☐ NO

Answers

1. Saturated fat is a major dietary contributor to high cholesterol. Foods like red meat, coconut and palm oils, and whole-fat dairy directly raise LDL (unhealthy cholesterol) levels.

2. Sterols and stanols in fruits, vegetables, and nuts—and added to some margarine and orange juice brands—help block cholesterol absorption in your intestines. They could lower LDL cholesterol by up to 15%.

3. A handful of nuts daily could help lower unhealthy cholesterol levels. Just about any type of nut—almonds, pecans, hazelnuts, or peanuts—will do the trick.

4. Fatty fish like salmon, tuna, and sardines are high in omega-3 fatty acids—good fats that increase levels of healthy HDL cholesterol.

5. Walk, ride a bike, swim laps, play tennis, or dance for 30 minutes a day. Routine aerobic exercise is another way to boost your HDL levels.

6. Ask your doctor for advice to help you stop. Smokers who ditch the habit improve their HDL cholesterol levels within one year of quitting.

EXPERT Q&A

Prescription Precaution

A commonly prescribed antibiotic can cause some serious side effects



JUST BECAUSE CERTAIN MEDICATIONS MAY OFFER A QUICK FIX FOR COMMON infections, they might not be the right tool for the job. For example, if you've ever had a sinus infection, bronchitis, or an uncomplicated urinary tract infection (UTI), you may have taken fluoroquinolones. These antibacterial medications are often prescribed to treat these conditions, but they come with serious risks.

Fluoroquinolones can cause disabling and potentially permanent side effects, which are highlighted in the FDA's recently updated warning labels for the medications. In fact, the FDA recommends using other antibiotics—which typically work just as well—to treat these common infections whenever possible. **John Whyte, MD**, director of professional affairs and stakeholder engagement at the FDA, answers a few top questions.

Q What are fluoroquinolones?

A These antibiotics, which stop the growth of bacteria, are intended for treating severe bacterial infections, such as anthrax, plague, and bacterial pneumonia. The six currently approved fluoroquinolones are:

- ciprofloxacin (Cipro)
- ciprofloxacin extended-release (Cipro extended-release)
- gemifloxacin (Factive)
- ofloxacin (Ofloxacin)
- levofloxacin (Levaquin)
- moxifloxacin (Avelox)

Q What should I know?

A For routine infections such as sinusitis, bronchitis, or an uncomplicated UTI, the risk of side effects generally outweighs the benefits of using fluoroquinolones. Just hours after their first dose, some people report symptoms that may affect several areas of the body at once, including the muscles, joints, tendons, nerves, and brain. Tell your doctor immediately if you feel:

- Unusual joint or muscle pain
- Muscle weakness
- A “pins and needles” tingling or prickling sensation
- Numbness of the limbs
- Confusion or hallucinations

Q How is the FDA addressing these risks?

A The FDA advises patients with sinus infections, bronchitis, and uncomplicated UTIs not to take fluoroquinolones when other treatments exist. It also communicated the potential side effects of fluoroquinolones to health care providers and in the drug package insert. For severe bacterial infections, however, the therapeutic benefits of fluoroquinolones outweigh the risks.

Q If I take fluoroquinolones now, what should I do?

A Ask your doctor if you need to use them. Health care professionals should not prescribe fluoroquinolones if other treatments are available for sinusitis, bronchitis, or an uncomplicated UTI.

BY THE NUMBERS

22

Millions of U.S. patients who received a prescription for an oral fluoroquinolone in 2014.

178

U.S. cases of healthy people who took an oral fluoroquinolone to treat bronchitis, sinusitis, or an uncomplicated UTI and developed disabling symptoms between 1997 and 2015.

74

Percentage of the 178 cases who were people ages 30 to 59.

Micah Fowler

Actor, 19, New Jersey



1

You booked your role in *Speechless* on your 18th birthday. How did it feel to get a present like that?

I was just so excited. It was the best present ever! I was overwhelmed; it was a little hard to believe at first. We had been waiting for about three months to hear the final word on casting.

2

How well does the program reflect your experiences—and your family's—with cerebral palsy (CP)?

A good deal of what you see are things that have really happened in my own life. The sled hockey episode is a direct result of the producers and writers finding out I play sled hockey in real life. Although I am not great at it, I absolutely love playing.

3

Your character, JJ, has more severe CP than you. Unlike you, he can't speak. What challenges does that present?

Sometimes I just want to blurt out what JJ is saying and feeling. Every night my mom and I come home and go over the next day's scenes, and she really helps me dial in on the emotions JJ would be feeling during the scenes—then I come up with the different expressions.

4

Apart from CP, how are you and JJ alike?

I have always had a sense of humor and love to make people laugh, so I can totally relate to JJ's sense of humor. My parents have always said that I should be a comedian! Seriously.

5

**What's an ideal day off?
What do you like to do for fun?**

I am an avid movie fan and especially enjoy the Marvel and DC franchises. I am also a resident expert in all things Star Wars.

6

What are your favorite foods?
Chinese, Chinese, Chinese, and Italian. I also love my food spicy! Tabasco is always a good backup if it doesn't have enough spice.

7

How does it feel to be a role model for others with CP?

I love the fact that I can encourage and spark a fire in others to not let their disability define who they are or what they can do in life. It's just awesome.

8

What about acting drives you?

I'm an actor because I just love it. I love every minute of it! The fact that it allows me to bring smiles to people's faces, make them laugh, and even make them cry is what drives me.

9

What message should your success send to others with CP?

Don't let your disability define who you are or what you can do in life. Don't set limits on yourself.

10

Aside from laughs, what do you hope viewers take away from watching your show?

Speechless gives viewers an inside look at the challenges those with special needs and their families face daily. As viewers watch week after week, I hope they begin to see JJ as a typical high school kid, not as JJ, the disabled kid.

—MATT McMILLEN

"My parents have always said that I should be a comedian! Seriously."