

ARE SCIENTISTS CLOSE TO AN ANTI-AGING PILL? PAGE 42

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JUNE
2017

HOW TO
DEAL WITH
CYBERBULLIES

PAGE 15

10 TIPS
FOR
BACK
PAIN

PAGE 55

THE PUBERTY
TALK YOU NEED
TO HAVE WITH
YOUR DAUGHTER

PAGE 28

TRY A SUMMER
SQUASH DISH
TONIGHT

PAGE 48

FIT & FUNNY

Kevin Hart

GOES ALL IN ON FITNESS—AND
TAKES HIS FANS WITH HIM

PAGE 32





FEATURES

32

Big Hart

Actor and comedian Kevin Hart gets his fans pumped up for healthy living

39

Rewriting Our DNA

CRISPR, a new gene-editing technique, may one day offer a cure for a host of diseases

42

The Race for an Anti-aging Pill

Can a pill slow the effects of aging? Scientists explore the possibilities.

Contents

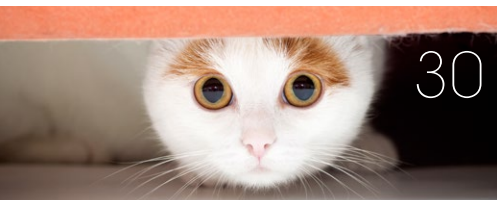
FITNESS

- 11 **Move More**
Counter the adverse health effects of sitting with some exercise
- 13 **Fitness Smarts**
How does your community rank for opportunities for activity?
- 23 **Health Boost**
Exercise is good for kids' bodies and minds



Contents

JUNE 2017



30



27



15



18



47

LIVING

- 12 **Work Wise**
Sexual harassment can take a toll on your health. Find out what you can do.
- 14 **Men's Health**
Questions for your doctor if you're thinking of reversing your vasectomy
- 15 **Mind Matters**
How to deal with cyberbullying
- 17 **Mind Matters**
Find out what happens in your brain when you talk on the phone while driving

BEAUTY

- 18 **Slip of the Lip**
Keep lips soft and supple during the hot summer months
- 19 **Beauty Smarts**
Get the scoop on sunscreen
- 21 **Expert Picks**
Top products for battling breakouts
- 22 **Anatomy of... Dry Shampoo**
What's in it and how does it work?

FAMILY

- 24 **Pregnancy**
Could morning sickness offer clues to your baby's health? Plus, nausea relief tips.
- 25 **Pregnancy**
Learn about pain relief choices during labor
- 26 **Baby**
The ins and outs of newborn hearing tests
- 27 **Kids' Health**
Tips for disciplining children with ADHD
- 28 **Parenting**
How you can prepare your daughter for puberty
- 30 **Pets**
What your dog or cat wants to say to you



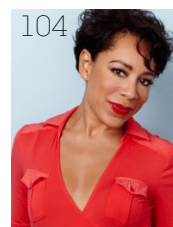
→ HELP FOR
MIGRAINE PAIN
PG 53

CHECKUP

- 53 **Cutting Edge** | Innovative treatments ahead for migraine relief
- 54 **Expert Q&A** | How to keep your medications effective—and safe
- 55 **Health Highlights** | Ease backache pain with these 10 tips
- 56 **Quiz: Incontinence** | Bladder leakage affects 25 million people
- 57 **Sleep Matters** | How does your sleep position affect your health?
- 58 **Doctor's Office** | What you should know about melanoma
- 59 **By the Numbers: Osteoarthritis** | Facts and stats about this joint disorder
- 60 **My Story** | One woman learns to manage hypothyroidism
- 61 **Your Smile** | Brushing tips

In every issue

- 4 **EDITOR'S NOTE**
- 6 **UPFRONT**
Quick fitness facts, plus health news you can use
- 62 **TAKE 10**
Top questions for *Orange Is the New Black*'s Selenis Leyva



104

On the Cover

PHOTOGRAPHY: ERIC RAY DAVIDSON / TRUNK ARCHIVE



GETTY IMAGES

Exercise Doesn't Have to be Hard



Actor and comedian Kevin Hart is very funny, but one thing he takes seriously is fitness. He not only works out every day, including on set, but he also shares his enthusiasm with his fans. He tells us in this issue how he uses his substantial celebrity platform to inspire others to get moving, such as by inviting them to run with him.

But if you're more likely to be on a couch watching a Kevin Hart movie than working out, you're not alone. The truth is, most people don't get the recommended amount of exercise, which is generally

about 30 minutes per day five days a week. You might be relieved to learn that you don't need to do all 30 minutes at once—three 10-minute sessions, for example, is just fine. Keeping a fitness journal or tracking your progress on an app can help. So can enlisting a friend to join you, even if he or she isn't quite as funny as Kevin Hart.

Kristy

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THE FUTURE OF ANTI-AGING

Check out WebMD's new Special Report: Can Science Outsmart Aging? From the secrets of "super-agers" to the role of DNA in aging, you'll find articles and a video detailing research efforts to help us live better, healthier, and longer lives. And for more on aging in this issue of *WebMD Magazine*, check out "The Race for an Anti-aging Pill" on page 42.

To see the full special report,
search "anti-aging" at WebMD.com.



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FACTS & STATS

Fit for Life

Your mirror reveals the visible results of exercise: more muscle tone, a leaner body. Under the surface, good fitness habits help your body operate at maximum capacity and resist conditions like heart disease, diabetes, and cancer.

→ **Tone Up**
Cardio and strength training can help maintain muscle mass as you age.

650+

The number of muscles in your body—including your heart. Strengthen it with at least 30 minutes of aerobic exercise at least five days a week.

1% to 2%

The rate at which you lose muscle mass each year starting at age 50. To preserve your muscles, strength train twice a week, working all major muscle groups.

1 hour,
17 minutes

The amount of time you'd need to walk off the calories in an iced cinnamon roll. Polish off two slices of pizza, and you'll need to pound the pavement for an hour and 23 minutes.

5 p.m.

The optimum time of day to strength train. Late afternoon is peak performance time for your muscles. Lung capacity also improves around dinnertime.

IN THE NEWS

Facing the Future



COLLEEN PARETTY
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This issue, we take you on a journey into the future of health with two stories that explore how science aims to potentially eliminate disease and improve the inevitable process of aging that we all face.

First, we dive into a very cool gene-editing technique called CRISPR that allows researchers to “snip” off sections of a cell’s DNA that could otherwise cause disease. Sound like science fiction? It’s happening in petri dishes in labs around the globe, with early clinical trials in humans in the U.S. and elsewhere just taking off. Turn to “Rewriting Our DNA” on **page 39** to find out how CRISPR works and which diseases may be first up to be eradicated.

Next, “The Race for an Anti-aging Pill” on **page 42** asks whether a drug could potentially treat the aging process and perhaps prevent age-related illnesses altogether. Two drugs currently in use point to some intriguing health-enhancing effects on the body’s cells. Harnessing these benefits may one day change how—and how well—we age.

Both stories are still in the realm of “maybe someday”—but they’re no less intriguing for all that. Enjoy. — *Colleen*



DIET DETECTION

CHECKUPS MIGHT ONE DAY

include a urine test that shows doctors how healthy your diet is.

Researchers in the U.K. have developed a test that screens for byproducts of fruits, vegetables, chicken, fish, red meat, and other foods, and can rank your eating habits on a four-point scale from very healthy to very unhealthy. Doctors could use these test results to better predict your risk for heart disease and diabetes and counsel you on how to prevent them.

SOURCE: *The Lancet*



Find Your Zen

Take a deep breath and say “om.” The secret to a fast-working brain might be to slow down the mind. In an eight-week study, people ages 55 and older meditated five times a week for about 10 minutes at a time. After two months, their reaction times in a test of cognitive skills had improved.

SOURCE: *Mindfulness*

1 in 3

RATIO OF U.S. ADULTS
who have high blood pressure.
Only half know it.

SOURCE: CDC

DIABETES' TOLL

Some 12% of Americans ages 30 to 84 die of diabetes—much more than the 3% researchers estimated previously. They investigated the cause of death of more than 300,000 people and found that diabetes was widely underreported on death certificates.

SOURCE: PLOS One



False Alarm

A false-positive result on a mammogram can be upsetting. But don't let it scare you off getting your next one on time. A

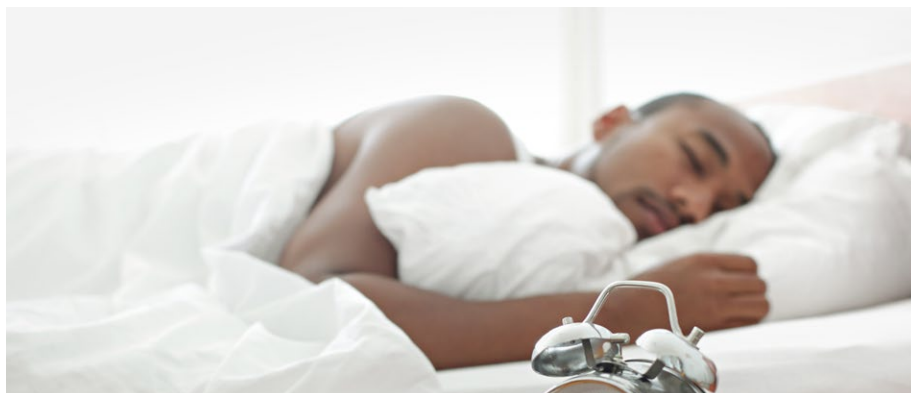
recent study found that women who get false positives are more likely than others to put off their next screening. In the same study, researchers found that delaying mammograms increases the risk of being diagnosed with late-stage breast cancer later on. The American Cancer Society recommends women at average risk of breast cancer get annual mammograms starting at age 45. You can get them every other year after age 55.

SOURCE: Cancer Epidemiology, Biomarkers and Prevention



VAPING RISKS The jury is still out on whether e-cigarettes are as harmful as tobacco cigarettes, but they aren't risk-free. A recent study that compared healthy, young habitual e-cigarette users to their cigarette-free peers found that the e-cig users had increased risk factors for heart disease, including more oxidative stress. That's when the body takes in more free radicals or toxins than it clears out. It's a consequence of cigarette smoking, too.

SOURCE: JAMA Cardiology



1 SHEEP, 2 SHEEP ...

Online sleep therapy might soon help people who have trouble sleeping catch some zzz's. Researchers at the University of Virginia designed an online program that delivers components of cognitive behavior therapy for insomnia. After 150 adults with chronic insomnia completed the six-week program, they reported less severe insomnia and were able to fall asleep faster and stay asleep through the night. In the program, sleep-seekers learned about limiting nighttime stimuli, setting a sleep schedule, and other good sleep habits.

SOURCE: JAMA Psychiatry

70

NUMBER OF
extra calories you may take in
each day if you add milk and sugar
to your coffee.

SOURCE: Public Health



Sit up straight! In a small study of adults with mild to moderate depression, upright posture improved mood and decreased fatigue.

SOURCE: *Journal of Behavior Therapy and Experimental Psychiatry*

POSTURE POWER

HEART HEALTHY

Only 16% of heart attack survivors get the recommended amount of physical activity five weeks after they leave the hospital. Thirty minutes of exercise, such as brisk walking, five days per week will greatly reduce your risk of a second heart attack.

SOURCE: *Journal of the American College of Cardiology*



Detergent Pod Dangers

SOME 480 PRESCHOOL-AGE KIDS got chemical burns in their eyes from laundry detergent pods in 2015. That's up from 12 cases in 2012. It happens when kids touch their eyes after holding the pods.

SOURCE: *JAMA Ophthalmology*

GROW KIDS' BRAINS

Children who believe that intelligence grows—compared to those who believe it is fixed—are better at learning from their mistakes. Researchers surveyed kids on their thoughts about intelligence. Then they monitored the kids' brain activity while they played a fast-moving video game that tested reaction time. Kids with the "growing intelligence" mindset paid more attention to their mistakes and did better in the next round than kids with the "fixed" mindset. The take-home message: Teach kids to learn from their mistakes. Don't sweep them under the rug.

SOURCE: *Developmental Cognitive Neuroscience*

GETTY IMAGES



"WAS THAT MY PHONE?"

Do you hear your phone when it's not ringing? If so, you might be an addict. Researchers asked about 800 young adults whether they ever heard phantom rings, felt vibrations, or saw phantom notifications. Those who did were more likely to report symptoms

of cell phone dependency such as using the devices to relieve sadness or anger, feeling bad when they couldn't get to their phones, and having obsessive thoughts about their phones. Sound familiar? Schedule some phone-free time each day, use apps to help control your usage, and set goals to socialize regularly in real life.

SOURCE: *Computers in Human Behavior*

AGE ADVANTAGE

Children born to moms older than age 35 had better thinking skills than kids of younger mothers in a study of 11,600 kids. The older moms were better educated, made more money, and were less likely to smoke during pregnancy.

SOURCE: *International Journal of Epidemiology*

Lather It On



DAILY USE OF SUNSCREEN

with SPF 15 or higher reduces your risk for melanoma by 50% and risk of squamous cell carcinoma by 40%. More is better—the American Academy of Dermatologists recommends using sunscreen with an SPF of at least 30.

SOURCE: *Skin Cancer Foundation*



BRING ON THE HEAT

Chili peppers may be the spice of a longer life. In a study of 16,000 adults, those who ate chili peppers at least once a month were 13% less likely to die during the 12-year study period than those who avoided the spicy fruit (yes, the chili is a fruit). Capsaicin, which puts the fire in chilies, might protect against obesity and thus lower risk for heart and lung disease and diabetes. It might also help maintain proper blood flow, which can prevent heart disease and stroke.

SOURCE: *PLOS One*

MOVE MORE

Get Going

Between work, sleep, TV time, and meals, most people spend the majority of their day in a seated position. Get up and move more—and you just might live longer.

MOST OF US SPEND UPWARD OF EIGHT hours a day—more than half our waking hours—sitting. Too much sedentary time leads to weight gain and the host of health issues that come with it: high blood pressure, diabetes, heart disease, and cancer. Moving too little might even age your cells faster, research shows. The antidote to sitting is exercise. Take hourly breaks and walk laps around the office. Get in an hour-long daily workout. Schedule plenty of moving time on weekends and days off. —STEPHANIE WATSON

→ **Keep It Up**
Daily workouts and walking breaks can help stave off the effects of a sedentary lifestyle.

→

WORK WISE

The Toll of Harassment

Unwanted come-ons and gender-based put-downs persist in the workplace, fueling health problems from anxiety disorders to chronic pain



THIRTY YEARS AFTER THE U.S. SUPREME COURT DESIGNATED IT A FORM of unlawful discrimination under the Civil Rights Act, sexual harassment remains endemic in the American workplace, impacting one in two women and one in six men, according to a recent report by the Equal Employment Opportunity Commission (EEOC). “We have come a far way,” it concluded. “But sadly and too often we still have far to go.”

The June 2016 report, along with newscaster Gretchen Carlson’s recent sexual harassment lawsuit against former Fox News Chairman Roger Ailes, and

a host of other high-profile cases have rekindled discussion of an issue researchers say is still vastly underreported. Ninety percent of people who are harassed never take formal action against their harasser. And many mistakenly assume that if it’s not a “sleep with me or lose your job” scenario, it’s not truly harassment, says University of Illinois psychology professor emerita Louise Fitzgerald, PhD, who has studied the issue since 1983.

The truth, notes Fitzgerald, is that sexual harassment comes in many forms and even at relatively low intensities can have lasting emotional and physical side effects: “It is like any stressor. It leads to a physiological stress reaction, and that reaction can over time have a real impact on health.”

More than 200 studies have documented health consequences. People who are harassed are more likely to have anxiety disorders or post-traumatic stress disorder, abuse alcohol, or develop eating disorders later in life. They may also have chronic headaches, sleep and gastric problems, nausea, respiratory complaints, neck pain, and high blood pressure. The more frequent the harassment, even if subtle, the more severe the emotional impact, Fitzgerald’s research shows.

What to do? Consider a lawsuit your last resort, not your first, stresses Florida-based employment lawyer Donna Ballman, author of *Stand Up For Yourself Without Getting Fired*.

Take notes documenting the dates and times the harassment takes place. Familiarize yourself with your company’s sexual harassment policy. And once you feel the time is right, speak up, either to your supervisor, human resource director, or in cases where you have been financially harmed by the harassment, the EEOC.

“The best outcome is that the system works. You report it, they stop it, and you can work in peace and they don’t hold it against you,” says Ballman. “There are a lot of situations where that happens.”

BY THE NUMBERS

13,000
Number of sex-based harassment charges filed with Equal Employment Opportunity Commission in 2015.

17%

Percentage of sexual harassment charges filed by males.

90%
Percentage of people who have been sexually harassed who never file a complaint.

FITNESS SMARTS

Community Action

A new report ranks 50 metropolitan areas in the U.S. on their fitness prowess. How does yours stack up?



→ **Paving the Way**
You're more likely to keep moving if your community makes it easy to do physical activity.

DOES YOUR COMMUNITY HAVE WHAT IT TAKES TO KEEP YOU FIT? According to the American College of Sports Medicine American Fitness Index, a yearly report that ranks the health and fitness of the 50 biggest U.S. metropolitan areas, certain factors are key.

"The top 10 have many recreational opportunities for residents to engage in physical activity," says Barbara E. Ainsworth, PhD, a professor at Arizona State University's School of Nutrition and Health Promotion. So if your community is loaded with parks, playgrounds, ball fields, and swimming pools, you're in good shape. If it has roads, trails, and sidewalks that make walking and biking a breeze, even better.

This year's winner is the Washington, DC, metro area, which includes Arlington and Alexandria, Virginia. The area has easy access to parks,

biking and walking zones, and lots of recreation centers. Residents of the area smoke less and have lower rates of diabetes and heart disease.

If your community has these assets, take full advantage. Run errands on foot. Bike to work. Take a dunk in the public pool. Bring your dog to the bark park.

If it doesn't, not to worry. While living in a healthy community is a plus, that doesn't mean you're out of luck. Ainsworth suggests four ways to stay fit:

Think outside the blocks. Take a short drive to places you can walk safely—like a stretch of sidewalks, walking trails, or the mall. Or join a gym.

Try manual labor. Mow the lawn. Haul clippings to the trash. Rake the leaves. Sweep your porch and driveway.

Join a fitness group. Organized clubs often have access to facilities. Try a club for biking, swimming, or tennis.

Be a weekend warrior. Too busy to drive to nearby recreation areas? "Studies show you can meet U.S. physical activity guidelines by engaging in activity on the weekends only—and also gain health benefits," Ainsworth says.

Make Improvements

WANT TO HELP YOUR CITY CLIMB THE FITNESS LADDER? TRY THESE TIPS FROM PUBLIC HEALTH EXPERT **BARBARA E. AINSWORTH, PhD.**

REACH OUT

Contact your parks and recreation department. Ask them to repair streetlights, broken sidewalks, and park equipment.

MAKE REQUESTS

Call your city and county transportation department. Ask for solutions for high-traffic areas and more bike lanes.

ENGAGE GOVERNMENT

Write to your state policymakers. Ask them to promote recreation and physical activity in your community and in schools.

GO LOCAL

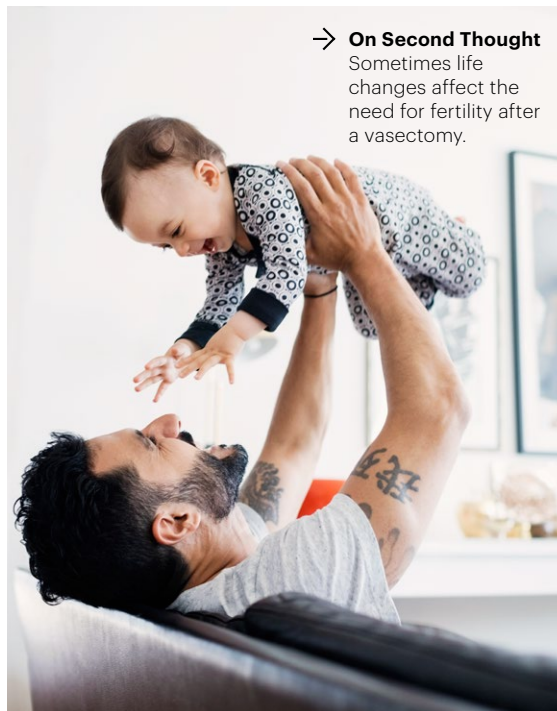
Create a community action group. Encourage neighbors to trim overgrown bushes that spill onto sidewalks. Form a group and help plant trees.

→ Search for the article [Vasectomy Reversal: Why You Need the Right Surgeon](#) at WebMD.com.

MEN'S HEALTH

Reversing Course

Each year, one in every 20 men who have had a vasectomy changes his mind and wants a reversal to restore his fertility. Our expert answers the questions you need to ask a urologist before undergoing this complex surgery.



→ **On Second Thought**
Sometimes life changes affect the need for fertility after a vasectomy.

How frequently do you perform the procedure?

Look for a urologist who does several each year. Some top experts perform two to five reversals every week, which enables them to achieve higher success rates. But be sure they only do one reversal a day. This allows them to focus all their energy and concentration on your reversal without being rushed to finish in time for their next surgery. It will also ensure that they won't go into your surgery fatigued from earlier operations.

How long will the surgery take?

A correctly performed reversal takes about two and a half hours. Watch out for doctors who do quickie reversals in 45 to 60 minutes. Just as bad are the doctors who take four to six hours or more.

Do you use a surgical microscope?

A reversal requires extreme precision because your vas deferens—the tube through which your sperm flows during ejaculation and which is the target of the reversal—is no thicker than a strand of spaghetti. True experts will only use a high-powered microscope—not magnifying glasses—when performing the procedure.

Do you look at the vasal fluid under a microscope?

This is essential to make sure that the vas deferens, or vas for short, is open or if there is deeper blockage.

If you see no sperm, do you perform an epididymal bypass?

Many men have a deeper obstruction in their vas, and that makes a traditional vas-to-vas procedure ineffective. In such cases, your urologist should be able to perform vas-to-epididymal bypasses (which connects the vas to the tube that carries sperm to the testicle) when needed.

Do you perform redo reversals?

On rare occasions, reversals can scar up. This usually occurs with less experienced surgeons—either because they don't have the skills required or they didn't examine the vas fluid and so ended up performing the wrong procedure. Top experts often have a busy practice fixing other doctors' failures.



"Watch out for doctors who do quickie reversals in 45 to 65 minutes."

—**SHELDON MARKS, MD**
DIRECTOR,
INTERNATIONAL
CENTER FOR
VASECTOMY
REVERSAL,
TUCSON,
ARIZONA

4 Tips

SOME BASIC FACTS TO KNOW ABOUT VASECTOMY REVERSAL PROCEDURES, ACCORDING TO UROLOGIST **SHELDON MARKS, MD.**

WHY IT'S DONE

"Sometimes a man who's had a vasectomy remarries, or he and his partner decide that they want more children."

WILL IT WORK?

"Top specialists in the procedure have extremely high success rates, even in men who had a vasectomy more than 20 years prior."

CHOOSE A UROLOGIST

"Unlike other doctors, only urologists train in male fertility surgery. Limit your search for a surgeon to urologists."

FIND AN EXPERT

"Don't settle on a surgeon who happens to practice nearby. If you can't find an expert you're comfortable with in your area, plan to travel for the procedure."

MIND MATTERS

Cyberbullying 101

As online harassment becomes more prevalent, we all need some strategies to cope—and prevent it from affecting our health



damaging forms include physical threats, sexual harassment, and stalking. About one in four women ages 18 to 24 report being stalked or sexually harassed on the Internet.

Researchers believe cyberbullying can be even more hurtful, psychologically, than physical bullying. One reason: “Targets often do not know who the bully is, or why they are being targeted,” says Sameer Hinduja, PhD, co-director of the Cyberbullying Research Center. “The aggressor can cloak his or her identity behind a computer or cellphone using an anonymous email address or pseudonymous screen names.”

→ **Don’t Do It Alone**
Cyberbullying can be isolating—talk to someone you trust.

Plus, online harassment incidents can quickly go viral, Hinduja says. With just a few keystrokes or clicks of a mouse, many people—in a school, in a town, in the world—can get involved or at least find out about the attack. Finally, “the fact that there is a measure of anonymity, and that it is easier to be cruel using typed words rather than spoken words face-to-face, also contributes to the problem,” Hinduja says.

FIRSTHAND EXPERIENCES

One writer, age 28, was harassed online after penning a story on the potential drawbacks of a vegetarian diet in a popular publication. A YouTube vlogger who is vegan responded with a video in which he mocked the article, called the writer derogatory names, and even included death threats. He encouraged his followers to send her hate mail with more threats and disparaging statements.

Unsurprisingly, this kind of harassment took its toll. “I cried. I felt really anxious. I was definitely scared,” the writer recalls. She felt distracted when she would go out with friends, and whenever she had a lull at work, thoughts about the online vitriol cropped up. Eventually, the hateful comments and emails subsided, but she still revisits the trauma to this day.

On WebMD’s Mental Health message boards, an anonymous user reported her own disturbing experience with cyberbullying and how it made her feel. “He keeps writing things about me on Facebook and even is threatening to write blogs about me on the internet with embarrassing photos,” she wrote. “Other people are joining in. It really makes me feel like there is no point in even trying at life. ... I just feel depressed all the time from when I wake up until I go to sleep, and I can’t sleep because I don’t know what they are going to write next.”

Several other women we spoke with were among the 25% of women who have been stalked online. After meeting an older man at an alumni event for her university, one young woman in New York City started receiving five to seven emails per day from him, until she finally blocked his email. After that, he sent a threatening Facebook message, warning her that she “didn’t want to make” him angry, “or there would be consequences.” He also told her he knew exactly where she lived. Once she blocked him on Facebook, the messages ended, but that didn’t stop her from feeling scared, even unable to eat or sleep. She later found out he was a known “troll” with many complaints from others about his online actions.

HEALTHY RESPONSES

Cyberbullying isn’t easy to shrug off. It can cause long-lasting psychological

damage, and even drive people to suicidal thoughts or actions. While most targets of cyberbullying do not become suicidal, research suggests they are more likely to have symptoms of depression than those who have been physically bullied. People who deal with online harassment may also feel sad, irritable, anxious, and hopeless. They may lose interest in activities they used to enjoy, start to sleep more or sleep less, and change their eating patterns. Studies also suggest that the psychological distress can lead to physical symptoms, such as stomach pain and headaches.

It’s easy to feel alone when you’re harassed online. But don’t isolate yourself; seek support instead. Talk about it with a friend you trust, your partner, a mental health professional, or your company human resources department if you believe a co-worker may be involved.

Also, keep in mind why the person is bullying others to begin with. “Cyberbullying is related to low self-esteem, suicidal ideation, anger, frustration, and a variety of other emotional and psychological problems,” Hinduja says.

Reducing your stress can help you see these difficult situations more clearly and make them easier to deal with. You can learn how to handle the stress of cyberbullying in constructive ways, such as eating healthy foods, working out, or trying yoga or meditation.

7 steps to stop online bullying

1

Do not respond to the cyberbully.
This can escalate the situation. If you feel you must, calmly tell the person to stop.

2

Save all evidence.
Take screen shots, keep voicemails, and print copies of emails and texts.

3

Report the abuse.
Visit the safety or privacy control centers of social media sites and internet service providers to learn more about their policies.

4

Contact law enforcement.
Tell them if threats include physical harm, sexual harassment, or stalking.

5

Block the bully's social media profiles, email address, and phone number.

6

Safeguard your passwords.
If anyone else knows them, change them now.

7

Check your privacy controls.
Make sure only people you know and trust can see your social media posts.

BY THE NUMBERS



→ Search for the video **The Basics: Text Neck** at WebMD.com.



MIND MATTERS

Drive, Already

Hands-free or handheld, phone calls drastically slow your reaction time behind the wheel. Think twice before you take that call. Is it worth your—or someone else's—life?

A HEADSET OR IN-CAR SPEAKERPHONE KEEPS YOUR HANDS ON THE WHEEL, but it doesn't keep your mind on the road. Talking on the phone while driving, whether on a handheld phone or hands-free, can slow your reaction time by up to 40%, a new study finds. The consequences of distracted driving are the greatest for the least experienced drivers who have a higher crash risk.

→ Distraction Alert

Even if your hands are on the wheel, phone conversations siphon your focus from driving.

“The main problem is not the physical act of holding the phone, but your cognitive condition,” says Tobias Egner, PhD, associate professor of psychology and neuroscience at Duke University. “It takes time to switch your focus back and forth between driving and the conversation.”

Brain scans show that when you concentrate on a task, such as a math equation, and then a distraction like background noise competes for your attention, a group of brain regions spring into action to help hold your focus on the primary task. But when you get engrossed in a phone conversation while you drive, your brain doesn't necessarily recognize driving as the more important primary task.

The brain recruits those attention-holding regions to help you focus on the phone conversation and lets the activity slow down in regions that ought to help with driving. Then the brain must quickly redirect the focus toward the road, reactivating driving-specific brain regions when you suddenly need to brake or swerve.

“By introducing the second task, the phone conversation, which is the type of task that requires you to think about what you're hearing and what your response is going to be, you create competition in your brain for a limited attentional resource,” says Egner.

That doesn't mean you have to drive in silence, Egner says. Radio and even conversations with people in the car don't seem to win over your attention the way phone calls do.

BY THE NUMBERS

5

Average number of seconds your eyes are off the road while texting.

97.5%

Percentage of drivers who don't drive well when they're on the phone. (The others are a scientific anomaly called “super-taskers.”)

38%

Percentage of drivers using cell phones during fatal crashes who are in their 20s.

1 IN 3

Number of drivers who admit to texting while driving.

SKIN CARE

Slip of the Lip

Think lip moisturizing is just for winter? Think again. Here's how dermatologists keep lips soft and supple during hot summer months.

→ **Protect Your Pout**
Apply a balm with SPF to shield your lips from harmful UV rays.

CHAPPED LIPS OCCUR YEAR-round, says Jessie Cheung, MD, a dermatologist in Chicago. "It's because the humidity from outdoors to indoors is drastically different with air conditioning." The solution? You can use a soft toothbrush or a damp washcloth to gently exfoliate your lips. Then apply a moisturizing lip balm afterward with softening ingredients like beeswax or coconut oil. Also, a balm infused with mineral sunblockers like zinc or titanium dioxide is critical in the summer. Lips can burn, and accumulated sun damage can lead to wrinkles as well as herpes outbreaks on the lips.

—AYREN JACKSON-CANNADY

➔ Search for **The Basics: How to Apply Sunscreen**, a video at [WebMD.com](https://www.webmd.com).

BEAUTY

BEAUTY SMARTS

Keep Rays at Bay

Which SPF? Spray or lotion? Physical or chemical? Before you head outside, ensure you don't see red this summer with a few important sun-protection strategies.



IF YOU'RE LIKE 70% OF WOMEN (AND 85% OF MEN), CHANCES ARE YOU SPEND most of the summer way too exposed. That's how many of us fail to regularly use sun protection on faces and bare skin, according to the CDC.

Because melanoma rates doubled between 1982 and 2011 and skin cancer is the most common cancer in the U.S., we could all use a little more coverage. (Doctors also believe UV-ray damage is responsible for 80% of the signs of premature aging.)

But you're not doomed to a life indoors. The thinking has changed on sun-protection strategies in recent years, and new insights should make it easier for you to avoid the rays and protect your skin.

SPF 30 IS THE NEW RULE

Conventional wisdom once dictated that SPF 15 was enough—but now the standard is to apply an absolute minimum of SPF 30, says Brian Zelickson, MD, a dermatologist in Minneapolis and founder of ZelSkin dermatology.

SPF 30 offers 97% protection against UV rays while SPF 15 only offers 93%. That 4% difference may not sound like much, but since most of us don't apply enough sunscreen for adequate coverage, that extra percentage can have a significant impact, Zelickson explains. The Skin Cancer Foundation suggests you use at least a nickel-size drop for your face alone.

BUT SPF 50 IS BETTER

If you plan to spend any significant time outdoors, you need to upgrade to SPF 50. "The chemical ingredients that absorb and diffuse UV rays lose their effectiveness after two hours, and mineral block can be rubbed off," says Jennifer Linder, MD, a dermatologist in Scottsdale, Arizona, and founder of Linder Dermatology and Skin Cancer Center. But if you can add SPF 50 to your regular routine, that would be ideal.

The "reapply every two hours" mandate is still solid advice, according to the American Academy of Dermatology, although Linder says it depends on your daily activities. "An application in the morning is probably enough for most people, as long as you're just going from your home to your car," she says. "But if you're going to a kid's soccer game, you

need to reapply." When in doubt, go ahead and reapply to be on the safe side.

PHYSICAL OR CHEMICAL?

Sunscreen falls into two categories: physical and chemical. They both effectively block UV rays, just in different ways, Linder says. Physical works just like it sounds—mineral particles of zinc oxide and titanium dioxide deflect rays before they penetrate the skin. Chemical options use a variety of ingredients to absorb UV radiation before it can penetrate your skin.

"The most effective sunscreens incorporate a combination of the two," she explains. But people with extremely sensitive skin will do better with physical formulas, she says. "In general, I advise looking for fragrance-free options to avoid irritation."

When in doubt, opt for a physical sunscreen, says Matthew Mahlberg, MD, medical director of Colorado Center for Dermatology & Skin Surgery in Denver. "New formulas avoid the chalky look of earlier versions, so they're feasible for a range of skin types and tones." He adds that people who are prone to eczema or very dry skin may find physical sunscreens to be drying.

LOTION OR SPRAY?

Essentially pick the option you'll most likely use. That being said, you tend to have better coverage with a lotion rather than a spray, Mahlberg says. "You need to spray a liberal amount and then rub

it in before it evaporates—most people aren't doing that." He suggests starting with a lotion, then using a spray for reapplication or additional coverage.

START NOW

"It's never too late to start using UV protection," Linder says. "It's a common misperception that we've done all the damage before the age of 18—but damage is cumulative, so you're adding on every day." Simple changes like seeking shade and wearing a wide-brim hat can make a difference.

"Limiting exposure to UV rays at any age is important because the tipping point at which a damaged skin cell becomes cancer can happen at any time," says Linder.

BY *Liesa Goins*

REVIEWED BY *Mohiba Tareen, MD*
WebMD Medical Reviewer

THE SCOOP

The She Shave

IT'S PERFECTLY FINE TO SHAVE THE PEACH FUZZ FROM YOUR FACE AS LONG AS YOU FOLLOW THESE SKIN SAFETY GUIDELINES, SAYS MIAMI DERMATOLOGIST JILL WAIBEL, MD.



1. WASH THE AREA CLEAN

This softens the skin while getting rid of any bacteria already on the skin.

2. USE SHAVING CREAM

The formulas are designed to deflect friction and help prevent skin irritation.

3. SHAVE IN ONE DIRECTION

Use a sharp razor and go over each section only once to reduce the risk of skin trauma that can lead to bacterial infections.

4. MOISTURIZE

Calm your skin after shaving with a non-comedogenic (meaning one that won't clog pores) face cream or soothing hydrocortisone cream.

Aisle Do

FEET ARE MORE EXPOSED DURING THE SUMMER MONTHS, BUT THEY DON'T HAVE TO LOOK LIKE IT. SMOOTH AND SOFTEN YOUR SOLES WITH THESE PEDI PICKS FROM LEADING DERMATOLOGISTS.

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.



PRODUCT PICK
AQUAPHOR Healing Ointment (\$14.99)

"I call this 'dermatologist duct tape' because it has so many uses. But for feet, it heals cracks in dry skin. It's a little slippery, so don't walk around barefoot after putting it on."

Eric Bernstein, MD
dermatologist, Ardmore, Pennsylvania

PRODUCT PICK
ISDIN Foot Care Uradin Podos Hydrating Gel Oil (\$30)

"This is amazing! It starts to eliminate roughness and mild thickening on the heel and sole of the foot in three days. Plus, the gel-oil texture absorbs fast, so it's not messy."

Fran Cook-Bolden, MD
assistant professor of dermatology, Columbia University, New York City

PRODUCT PICK
AmLACTIN Moisturizing Body Lotion (\$18)

"This body moisturizer contains 12% lactic acid, which is one of the best alpha-hydroxy-acids and a great exfoliant. Exfoliation is needed to get rid of dead, dry, and often cracked skin. Hydration is needed to bring back supple, healthy-looking skin."

Eliot Battle, Jr., MD
dermatologist, Washington, D.C.

GETTY IMAGES

Dirty Secret

"I'VE NEVER CLEANED MY HAIRBRUSH—HOW BAD IS THAT?"

YOUR PRODUCTS CAN BE A PROBLEM

All the styling products you use build up on the bristles and settle on the base. That goop attracts dirt, which ends up on your hair—leaving it dull and weighed down. It's also possible to develop scalp problems because the buildup breeds bacteria that can lead to irritation.

YOUR BRISTLES NEED SOME TLC

Without regular cleaning, alcohol from aerosol sprays and silicone from styling products can break down and weaken bristles, decreasing their lifespan. If you've invested in a high-quality natural bristle brush, you should do a little maintenance.

YOU'LL HAVE MORE GOOD HAIR DAYS

If you're not sharing your brush with anyone else and use very few styling products, you can get away without regular cleaning. Once a month, take a comb and scrape the bristles to remove hair. Squirt shampoo on the brush, rinse in lukewarm water, and let it air dry.

—Gwynne Mims, owner of Gwynne Mims Salon, Jacksonville, Florida



JILL WAIBEL, MD,
OWNER, MIAMI
DERMATOLOGY AND
LASER INSTITUTE,
MIAMI, FLORIDA

EXPERT PICKS

Breakouts, Begone

Acne isn't just for teenagers. If you fight fine lines alongside breakouts, add these expert product picks to your beauty arsenal.

→ Search for the slideshow **Adult Acne: Popular Questions and Answers** at WebMD.com.



1. SPOT LESS
Neutrogena On-the-Spot Acne Treatment
(\$6.84)

"This over-the-counter cream helps spot-treat small breakouts without drying out your face. It goes into the pores to kill the acne-causing bacteria and helps with the prevention of new pimples."

2. SCREEN TIME
EltaMD UV Clear Broad-Spectrum SPF 46 Sunscreen
(\$18.62)

"This is an oil-free, lightweight sunscreen that calms and protects sensitive skin from UV rays. It is recommended for patients who are prone to acne breakouts, rosacea, and discoloration. It contains a variety of vitamins and antioxidants that help give skin a healthy-looking glow."

3. DOUBLE DUTY
ROC Retinol
(\$19.99)

"This retinol is naturally derived from vitamin A, a key component in helping rid skin of acne breakouts. It works by slowing down oil production in your skin, which can prevent future breakouts. Bonus: Retinols help reduce the appearance of fine lines by rejuvenating the collagen in your skin."

4. POWDER PLAY
Bare Escentuals bareMinerals Matte Foundation
(\$28.50)

"It is common for acne-prone women to apply liquid foundation or thick makeup to cover up their skin. But doing that is counterproductive—it further clogs pores, causing additional breakouts. These powders are applied with a brush and can help absorb acne-causing excess oil from your face."

ANATOMY OF....

Dry Shampoo

You don't have to get into a lather to keep your hair fresh. Here's how dry shampoo can save your strands.

SOAK IT UP

It's not really a shampoo, per se. Consider it a styling product that helps absorb dirt, oil, and product residue to refresh hair without water. Usually in aerosol form, dry shampoo also can be dusted on like a powder.

HAIR HISTORY

Dry shampoos usually contain a form of starch or clay that absorbs residue. The concept is similar to powdering wigs during the 18th century. The National Museum of American History even has a dry shampoo in its collection.

HOW IT WORKS

Denatured alcohol acts as a carrying agent that holds the ingredients in suspension so the formula is sprayable. It evaporates quickly, leaving the starches in place.

SHAMPOO IN A CAN

Liquefied petroleum gas (an alternative to outlawed chlorofluorocarbons) acts as a propellant that launches the powders out of the can. Just don't spray it near an open flame—it's highly flammable.

SPRAY ON

Hold the can 6 inches away from your head, aim at your roots, then brush through. If you're too close, the product can feel waxy and heavy.

GIVE YOUR HAIR A LIFT

Spray on roots before going to bed to help fight oil. It's also a shortcut for restyling hair after a workout. Those with fine hair can use dry shampoo to add volume or provide grip to keep an updo in place.

COLOR CONSCIOUS

Skipping a wash can help extend the life of hair color. So swapping a traditional shampoo with a dry option can slow the fading process.

HEALTH BOOST

Fit Kids

Kids who exercise their body also exercise their mind

WANT TO GIVE YOUR kids a boost for their physical health and their school skills? A recent study suggests that regular physical activity—at least 20 minutes a day—for kids who are overweight improves their math abilities without any extra studying. Even better, the more exercise your child gets, the more he might improve in math. Kids who exercised 40 minutes a day saw their math scores go up even higher. One-third of kids in the U.S. are overweight, and this is just one more reason to encourage your kids to get exercise every day.

—HEATHER HATFIELD

→ **Do the Math**
Research says that at least 20 minutes of exercise a day can improve math ability.

→ Get the **WebMD Pregnancy App** and keep track every day until that special day.



KRISTEN SHARP, MD
ASSISTANT PROFESSOR,
OBSTETRICS AND GYNECOLOGY,
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND
PUBLIC HEALTH

PREGNANCY

Easy Queasy

Could morning sickness offer clues to your baby's health? Our expert explains the connection and offers some nausea relief tips.



→ **Settle Down**
Ginger tea and ginger ale help alleviate nausea. So does vitamin B-6.

What causes morning sickness?

The exact cause isn't completely understood. We do know that morning sickness can be tied to the pregnancy hormone beta hCG. Women who have increased amounts of beta hCG—for example, if they're pregnant with twins—tend to have more severe nausea and vomiting.

Do women with morning sickness have healthier pregnancies?

The healthier a pregnancy is, the more likely a woman's body is to produce normal amounts of beta hCG. So we expect those levels to rise if a pregnancy is developing normally. And with rising hCG levels comes more nausea. So in a sense, it can give clues about the health of the pregnancy.

Could a lack of morning sickness signal a problem?

That depends on when it happens. Morning sickness is so variable from woman to woman. Some women don't have it at all. Others have such severe morning sickness that it's debilitating. If the nausea abruptly stops, sometimes that can be a warning sign, but it isn't a diagnostic indicator that something is wrong with the pregnancy.

When does morning sickness ease up?

Usually it will start to taper off by the

end of the first trimester. But in some women it stops sooner, and in others it continues throughout the entire pregnancy.

What can women do for relief?

Eating small, frequent meals can be helpful. Sometimes the nausea gets worse when you have nothing in your stomach. Keep a box of crackers by your bedside so you can eat something when you first get up. If certain foods or smells—like coffee—set off your nausea, try to avoid them.

To calm the nausea, take ginger—such as ginger ale and ginger tea. Vitamin B-6 and the sleep aid doxylamine (Unisom) can also help. Because this can make you drowsy, you might want to take it at night. Some studies show that acupuncture and acupressure help with morning sickness, so they're also worth trying.

4 Warning Signs

CALL YOUR DOCTOR IF YOU NOTICE ANY OF THESE MORE PROBLEMATIC SYMPTOMS, SAYS **KRISTEN SHARP, MD**

VAGINAL BLEEDING

"Spotting or bleeding, especially in your first trimester, could be a sign of a miscarriage or ectopic pregnancy."

MENSTRUAL-LIKE CRAMPS

"Early in your pregnancy, severe cramps could warn of a miscarriage. Later on, abdominal pain could mean you're in early labor."

DEHYDRATION

"If you're so nauseated that you can't keep down fluids, you're at risk for dehydration. Look for signs like decreased urine, headaches, dizziness, and severe fatigue."

SEVERE VOMITING

"Intense morning sickness can prevent you from eating. It becomes a problem when you can't take in enough calories to support your growing baby."

➔ Search for **Checklist: Get Prepared to Go into Labor** at WebMD.com.



➔ **Labor Options**
Birth balls and warm baths can help you stay mobile—and more comfortable—during early labor.

PREGNANCY

Pain Points

If you're expecting, you may be worried about how you'll make it through labor. Fortunately, moms-to-be have access to many pain-relief methods.

IN NEW RECOMMENDATIONS, THE AMERICAN CONGRESS OF OBSTETRICIANS and Gynecologists now says that women with low-risk pregnancies can safely choose to have less medical intervention during labor. But that doesn't mean no pain relief. About 60% of women have an epidural, but that's just one possible path. "An epidural is not a medical must," says Jeffrey Ecker, MD, chief of obstetrics and gynecology at Massachusetts General Hospital in Boston.

Women often develop a labor plan with advice from their doctor. Each delivery is different, so be open to changing your mind. Pain varies based on the size and position of the baby and the strength of the contractions. Your choices for relief include:

Comfort and support: Rhythmic breathing and relaxation techniques help you cope with contractions. In early labor, a warm bath (close to body temperature) can be soothing. Sitting on a "birth ball"—which resembles an exercise ball—can curtail the intensity of the pain.

ASK YOUR DOCTOR

Q I'm nervous about the pain. How can I reduce my fear?

Childbirth education may help. Or try enlisting a doula, or trained childbirth aide, to provide emotional support and comfort techniques during labor.

Q What pain relief do you recommend for early labor?

You may want to use a technique or medication that allows you to walk and stay mobile.

Q If I choose nitrous oxide, can I also have a different kind of pain relief if I need it?

When you stop breathing in nitrous oxide, the effects subside within five minutes. You can then switch to a different method.

Q What effect will my pain relief choice have on my baby?

All methods are safe and none should have significant effects on your infant, but always ask your doctor to clarify and confirm.

Narcotics: If the pain becomes too great, an injection of a narcotic can take the edge off. (You won't be pain-free.) Often it is mixed with another medicine that reduces the side effects of nausea and vomiting. Narcotics can make you drowsy. But they are short-acting so the effect wears off quickly. Your doctor will not likely give you a narcotic close to the delivery time, due to potential risk to the baby.

Epidural or spinal block: An anesthesiologist injects medicine through a narrow tube in your lower back to block pain signals. Pain subsides within 10 or 20 minutes. Some women have a single spinal injection, which isn't as long-lasting (about two and a half hours) but does provide immediate relief. You will remain alert but might feel some numbness. Sometimes women have headaches or backache after an epidural but the technique is safe for the baby.

Nitrous oxide: You control how often you breathe a mixture of nitrous oxide and oxygen through a mask. It may ease but not eliminate the pain, and possible side effects include sleepiness, nausea, or dizziness. Your baby's alertness won't be affected.



→ **Young Ears**
In-hospital hearing tests happen while your baby sleeps.

BABY

Hear This Out

Did your newborn fail his hearing screen? Here's why the result might not be as bad as you think.

JUST BEFORE LEAVING THE HOSPITAL, NEWBORN BABIES TYPICALLY receive a hearing test. For most, the result adds to an overall report of good health. But what if your baby fails?

"The first message is 'Don't panic,'" says Charles Bower, MD, chief of pediatric otolaryngology at Arkansas Children's Hospital in Little Rock. "Not passing the screen does not mean your child has permanent hearing loss."

The test is set to detect as many cases of hearing loss at birth as possible, which means some babies fail even though their hearing is fine. Other babies have temporary issues, such as fluid in the middle ear that hasn't yet fully drained, left over from their time in a watery womb.

Between 2% and 10% of newborns fail their first hearing screen, but fewer than 1% have hearing loss. Still, that adds up to about 12,000 newborns each year. Finding those babies is important because language and speech development begins at birth. Early intervention helps babies with hearing loss build normal language skills.

If your baby failed, follow up with your pediatrician and arrange another test with an audiologist by 3 months of age. Other things to know about babies and hearing:

ASK YOUR DOCTOR

Q No one in my family has a hearing problem. What caused this?

Low birthweight, premature birth, and some infections during pregnancy can put your baby at risk for hearing loss.

Q Is the hearing loss part of another problem?

Some babies with hearing loss have a genetic syndrome, such as Down syndrome.

Q If my baby can't hear me, can I use sign language?

Babies can learn American Sign Language as their first language. You can teach your baby while you and your family are learning it.

Q My newborn passed the test. Does that mean he will have normal hearing?

Older babies and children can develop hearing loss from ear infections, injury, or other causes. Ask for a screening if your child isn't hearing well.

The first, in-hospital hearing test isn't loud or uncomfortable. Your baby will be tested while sleeping. (At the 3-month follow up, your baby may receive sedation.) Tests take 10 minutes or less and measure either sound waves or nerve response in the ear to a click or tone.

You can't always tell if your baby has a hearing problem. Your baby may have hearing loss even if she is cooing, babbling, or seems to respond to sound. Even mild or moderate hearing loss needs attention, Bower says.

Babies can have hearing aids. They are usually placed behind both ears to amplify sound. Hearing aid technology has improved greatly, and they can be set to minimize background noise.

Babies can have implants when they are 1 year old. Cochlear implants are an option if hearing aids don't work and the hearing loss is profound. Placed under the skin behind the ear and in the cochlea in the inner ear, the devices convert sound into electrical impulses that the auditory nerve transmits to the brain. Children need therapy to adjust to the implants.

KIDS' HEALTH

Be Consistent

How can you discipline a child with attention deficit hyperactive disorder in a way that helps teach better behavior? Strike the right balance between praise and privileges and use the rules consistently.



→ Rule Breakers

At times, you might need to take away a fun activity, like playtime.

Why is discipline important for children with attention deficit hyperactive disorder (ADHD)?

Kids with ADHD have difficulty with instructions, maintaining focus, regulating their behavior, and organization. Getting things done on time for kids with ADHD isn't easy either. So parents play an important role in creating structure: clear rules, feedback—both positive and negative—and consequences to help kids with ADHD understand limits and learn how choices bring either privileges or discipline.

What strategies work best when disciplining kids with ADHD?

Setting clear expectations is an important part of parenting kids with ADHD—use the rules consistently, and remind your child frequently so he understands and learns them. Then, praise your child and let him earn privileges for following the rules. When the rules are broken, the result is simple—no privileges.

When behavior really requires a clear consequence, you might need to take away everyday activities as well, for instance, reducing access to phones, TVs, or playtime.

What behaviors can I let slide with kids with ADHD?

Ignore the little things that all kids do—with or without ADHD. Whining is a good example. Annoying? Yes, but it's not a punishable behavior. Instead, wait for the child to stop, and then say, "Thanks for

being calm. How can I help you now?" A good rule of thumb: If the behavior isn't bothering you or creating problems for your family, think about letting it slide.

What types of discipline should I avoid?

Only parenting your child with ADHD when he misbehaves will probably not work. This creates a cycle in which the child knows he'll get attention if he misbehaves. Yelling, lecturing, and spanking are probably not going to work either—these put stress on both the parent and the child, which could make the symptoms of ADHD worse.

What can I do if discipline just doesn't work?

Don't give up. Disciplining a child with ADHD isn't easy, and results take time. Try a balance of praise and privileges, along with consequences, every day for two weeks, and you should start to see some benefit.



"Don't give up. Disciplining a child with ADHD isn't easy, and results take time."

—JULIE S. OWENS, PHD, PROFESSOR OF PSYCHOLOGY, CO-DIRECTOR, CENTER FOR INTERVENTION RESEARCH IN SCHOOLS, OHIO UNIVERSITY

4 Tips

HERE'S HOW JULIE OWENS, PhD, SUGGESTS TURNING BAD BEHAVIOR INTO A LEARNING OPPORTUNITY

BALANCE

"Strike the right balance between praise and discipline in kids with ADHD—they need both to learn and understand limits."

SMALL DOSES

"Don't pile on the discipline. Take away TV for 10 minutes—this gives you room to add on more time if the behavior continues."

EMPOWER

"After your child is disciplined, talk to him about what went wrong. Help him understand that if he doesn't like losing a privilege, then he should choose better behavior."

GET HELP

"Talk to others, attend a parent group for kids with ADHD, or talk to a behavior support specialist—all will give you new ideas for parenting your child and remind you that you're not alone."

PARENTING

The Puberty Talk

New research suggests mothers provide too little information too late, leaving girls feeling scared and unprepared. Here's what you can do.

➔ **Start Talking**
Information and support during puberty can help build self-confidence in girls.



WHY IS MY BODY CHANGING? WHEN WILL I GET MY FIRST PERIOD? I'M SO moody; what's wrong with me? Such questions are par for the course for girls approaching puberty. But many girls aren't getting the answers they need to answer these basic questions.

A sweeping review of 20 studies of lower-income U.S. girls, published in January in the *Journal of Adolescent Health*, found that the majority felt the information they got about puberty was inaccurate, incomplete, or too late. The less prepared girls felt, the more likely they were to describe puberty as “embarrassing,” “scary,” and “confusing.” The study (which focused on mothers specifically) also found that a mom's approach to addressing puberty with her daughter mirrored her experience with her own mom, and that most mothers today feel unsure about when and how to bring the subject up.

The results are troublesome, says lead author Marni Sommer, RN, an associate professor at Columbia University, because a girl's experience with the onset of puberty can have a lasting impact on her social and sexual development and her attitude toward menstruation.

“Puberty is the cornerstone of reproductive development. If a child has an informed, supported, healthy transition that helps her build self-confidence instead of being ashamed, that can set her on a really good path,” she says.

EARLY PUBERTY CAN MEAN HIGHER RISK

The first signs of puberty now arrive earlier than a generation ago. The average age of breast development among U.S. girls is younger than 10, while the average age of a girl's first menstrual period is 12.5 (that's 3.5 years younger than it was in 1860). Some 49% of African American girls and 15% of Caucasian girls show some sign of pubertal development by age 8. Rising obesity rates, psychological stressors, and endocrine-disrupting chemicals are all likely at play, research suggests.

Girls who enter puberty early are more likely to have poorer body image and lower self-esteem and are at greater risk of depression and substance abuse later in life, studies show. Sommer's review collected dozens of girls' comments and found that early-maturing girls in particular recalled

“Starting off with a sense of insecurity during this time can have a domino effect.”

“unwanted attention, touching or teasing” from male peers, wore baggy clothes to avoid it, and often felt shame and fear when they got their period.

“Starting off with a sense of insecurity during this fragile time can have a domino effect” later in life, says clinical psychologist John Chirban, PhD, author of *How to Talk with Your Kids About Sex*. In contrast, research shows that girls who feel prepared and supported are more buffered from such negative consequences, even if they get their period early.

TALK EARLY AND OFTEN

The takeaway: Don't wait for your daughter to come to you.

Chirban stresses that the earlier in life you start subtly broaching the subject of sexual development, the less awkward it will be to talk about when puberty arrives. As early as toddlerhood, bath-time conversations about hygiene can serve as a springboard to answer questions and talk about how bodies develop over time.

At the first signs puberty is coming on,

often as early as age 7 or 8, it's time to get specific. Start talking not only about the physical changes in store, including skin changes, hair growth, and body odor, but also the emotional ups and down that can come with fluctuating hormones. “It's normal to feel exuberant and excited one day and sad the next,” says Sommer. Chirban recommends discussing why menstruation happens and what to expect from it during a separate, later conversation (ages 9 to 11 on average but for some it could be earlier).

Moms uncomfortable with the topic of puberty can get help from peers and books. (Chirban's offers scripts for parents of children age 8 and younger, 9 to 11, and 12 and older.) If Dad is charged with handling the task, consider enlisting an older sister, aunt, or other female role model to help get the conversation started. Then be ready to listen.

“Let her know that you understand it can be uncomfortable, but that it's a natural part of growing up and you're available,” says Sommer.

TALKING TIPS

PUBERTY RESEARCHER **MARNIE SOMMER** AND PSYCHOLOGIST **JOHN CHIRBAN** OFFER THESE TIPS FOR NAVIGATING DISCUSSIONS ABOUT PUBERTY WITH YOUR DAUGHTER.

EASE IN

Don't feel like you have to cover everything at once. If you notice body odor, start talking about hygiene. If you notice breast-buds, go bra shopping. Save talk of menstruation and sex for later.

BE SPECIFIC ABOUT MENSTRUATION

When preparing her for her first period, let her know it might start with spotting, be brown rather than red, and she may have cramping. Send her to school with pads or tampons, so she isn't caught off guard.

BE SPECIFIC ABOUT SEX

Don't just explain that your daughter is physically able to get pregnant now. Explain physiologically why. Illustrations can help.

DON'T LEAVE IT TO OTHERS

School sex education classes often don't start until fifth grade, after some girls have already started developing. While books can be helpful, “just throwing a book at your child can make them feel even more alone. They need your help unpacking it,” says Chirban.

KNOW WHAT'S GOING ON IN SCHOOL

Ask your child what they talk about in health class and what is going on with friends. These can all be great springboards for conversations about puberty.



MENSTRUATION 101

2 to 3

The average number of years between the first sign of breast development and a girl's first period.

15

The age by which 98% of girls have gotten their first period. If your child is 16 or older and hasn't had one yet, consult your doctor.

32 days

Average length of the menstrual cycle in the first year. The first period typically lasts two to seven days.

3 to 6

The number of pads or tampons a girl can expect to use in the course of one day.

GETTY IMAGES

PETS

Say What?

Have you ever wondered what your dog or cat would tell you if they could talk? Chances are they'd ask for love, consideration, and plenty of healthy habits for a happy life.



➔ **Share the Love**
Talk to your dog in an upbeat tone instead of yelling to help her feel loved.

THERE'S NO SHORTAGE OF VIDEOS, CARTOON STRIPS, AND MEMES "TRANSLATING" what pets think. But our experts make some educated guesses about what the dog or cat in your life would like you to know.

DOGS

"I need you to be a loving parent." Your dog relies on you for more than food, water, and shelter. "Dogs have been bred to crave attention and affection from humans," says Sharon Crowell-Davis DVM, PhD, DACVB, veterinary behaviorist and professor at the University of Georgia.

Speaking to your dog in an upbeat tone of voice and offering lots of belly rubs will help your dog feel loved. Avoid yelling, which can make your dog feel afraid.

"I crave mental and physical exercise." Dogs love to play. Games of fetch, long walks, and romps at the dog park are perfect activities for burning energy. But dogs also need mental exercise. Crowell-Davis suggests teaching dogs new tricks or using puzzle feeders to give their brains a workout, too.

"My diet matters." Dogs need a balanced diet and portion control.

"Being overweight makes a dog's joints hurt and can lead to diseases like diabetes," Crowell-Davis explains. Your vet can recommend the right food (and serving size) based on your dog's age, breed, and current weight. Offer treats sparingly.

"Please take me to the vet." Your dog might prefer going to the dog park or pet store over the vet, but Crowell-Davis believes dogs appreciate the health benefits of being up-to-date on vaccines (or at least—maybe—they enjoy the ride there and back). Your dog should have annual wellness checks.

CATS

"Please clean my litter box." If you want your cat to do her business in the litter box, keep it clean. Scoop the litter at least once, preferably twice, per day.

Jen Corsun, manager of Cat World at Best Friends Animal Society, recommends one litter box for each cat plus one extra. So, one cat should have access to two litter boxes, and three cats need four litter boxes.



"Provide a scratching post—or else." Scratching helps cats trim their claws, mark their territories, and get a good stretch. To protect your furniture and curtains, provide an appropriate place for cats to put their claws.

"Cats don't want to scratch on the couch but they will if nothing else is available," says Corsun.

"I need my space." Cats are independent and need a warm, safe place to call their own where they can retreat if they need time alone, according to Corsun.

Their needs are simple: A cardboard box with a blan-

ket, a spot on the sofa, or a hideout beneath the bed will all work. Since some cats like to be up high and others prefer to be down low, offer spots at a number of different heights.

"Pay attention when I tell you something."

Your cat knows what she wants—and she'll hiss, claw, or run off if she is forced into a situation she doesn't like. Understanding and respecting a cat's signals is important, notes Corsun.

"If she hides when people come to visit, don't drag her out," she says.

ASK YOUR VET

FOR YOUR NEXT APPOINTMENT, VETERINARY MEDICINE EXPERT **SHARON CROWELL-DAVIS** DVM, SUGGESTS THREE QUESTIONS.

Q Is my pet overweight?

Your vet will tell you if your pet needs to shed a few pounds and offer tips for healthy, sustained weight loss.

Q Is this normal?

Whether the dog eats grass or the cat hides under the couch, your vet will know if the behavior is normal or a sign something is wrong.

Q Will training help?

"If a pet is doing something wrong, don't abandon them at a shelter," Crowell-Davis says. "Most behaviors can be changed with training."

BIG FAT BRAIN

Actor and comedian **KEVIN HART** goes all in on his work, fitness regimen, and life. He wants you to do the same.

BY Kara Mayer Robinson + REVIEWED BY Michael W. Smith, MD, CPT, WebMD Chief Medical Editor



PHOTOGRAPHY: ART STREIBER/AUGUST

COMIC POWERHOUSE KEVIN HART IS BIG. REALLY, REALLY BIG.

OK, sure, at around 5'4", he comes in a compact package. But his personality and following are huge. The megawatt comedian consistently sells out football stadiums and arenas. He's a box-office smash, with films like *Get Hard*, *Ride Along*, and *The Secret Lives of Pets* grossing more than \$3.5 billion. He has 105.9 million—*million!*—

**“THIS IS MY
LIFESTYLE
—ALWAYS WANTING TO
IMPROVE, ALWAYS
WANTING TO
DO MORE AND GET
BETTER.”**



PHOTOGRAPHY: JEFF LIPSKY/GPI SYNDICATION

social media followers. His new memoir, *I Can't Make This Up: Life Lessons*, climbed to the top of Barnes & Noble's bestseller list four months ahead of its June 6 release.

This is no accident. When Hart takes on a challenge, he goes full throttle. With mottos like “The sky's the limit” and “No days off,” no one should be surprised he's skyrocketed into the stratosphere.

“Always putting forth the best effort possible is what my life is about,” says Hart, 37. “I'm pure proof that quitting is not a choice. This is my lifestyle—always wanting to improve, always wanting to do more and get better.”

MOVING NON STOP

Hart employs this philosophy in just about every corner of his life, including his health. His fitness regimen is serious business. Whether it's running, boxing, CrossFit, core work, or weight lifting, he's all in—typically seven days a week, with only one to two days off per month.

When he's shooting a movie—like *Captain Underpants: The First Epic Movie*, out this month, or *Untouchable*, which he recently filmed with actor Bryan Cranston—he doesn't let up. “I treat it like boot camp,” he says. “I work out in the morning, and I'll work out on my lunch break in my gym trailer.” That's right—his gym trailer. Most Hollywood A-listers have a mobile dressing room, or trailer. But Hart also sets up a temporary gym.

“I'm pretty much nonstop,” he admits. “But my days don't feel right if I don't feel like I've put the most into it, into building me and working on me as much as possible.”

Hart puts more time in than most. Fewer than 5% of Americans get 30 minutes of exercise five days a week, the official recommendation. Exercise is key for warding off conditions like heart disease, diabetes, and stroke; recent studies suggest it may also improve memory and slow cognitive decline.

For most of us, 30 minutes most days of the week is a good target, says Aparna Asher, MD, a family physician with Davita Medical Group in St. Petersburg, Florida. But if you're super-active like Hart, factor in time for recovery. “You need a break,” Asher says. For every six days of high-octane exercise, take one to two days off.”

Hart is committed to eating well, too. A typical meal includes chicken, brown rice, and asparagus. “It's always chicken. Maybe turkey burgers or turkey meatballs every once in a while,” he says.

“At this point, I'm a machine. I put a heavy demand on my body,” Hart explains. “We're talking about a guy who does anywhere from 12- to 13-hour days. You can't ask your body to constantly give you results if you're not putting good things into it. It's not something I hop in and hop out of. It's a way of life.”

Asher gives this a thumbs-up. For starters, a diet high in fruits, vegetables, whole grains, and lean protein is linked to a longer, healthier life. Hart's lifestyle approach is equally stellar. “Healthy living is not a fad. It's a mindset. It's what you do every single day,” Asher says.

Hart does fess up to one guilty pleasure: fried chicken. “That's the one thing,” he says. “Oh, man, Popeyes, KFC, home-made—it doesn't matter. Anyone who eats it around me is in trouble!”

PASS IT ON

With so many fans watching his every move, Hart wants his “all in” attitude to rub off—and he's making it happen.

Hart recently signed with Nike to create Move With Hart, a program that inspires people to be active with training apps, clubs, events, and podcasts. Nike also designed a shoe embellished with Hart's

HOW HEALTHY ARE AMERICANS?

+ **One in three** Americans gets enough exercise. That's **150 minutes** of moderate activity or **75 minutes** of intense activity every week.

+ **Most adults** don't eat enough fruits, vegetables, and whole grains. That's about 2 cups of fruit, 2 to 3 cups of vegetables, and 3 to 4 ounces of whole grains a day. About **58% of adults** say they should eat healthier than they do.

+ Heart disease is the **No. 1** cause of death in the United States, affecting **27.6 million people**.

+ About **12.6%** of American adults have diabetes. **One-quarter** of people living with diabetes don't know they have it.

+ **One-third of adults** have an annual checkup. It's the top reason they visit a doctor.

+ **Fewer than two in three adults** get enough sleep on most nights. That's seven hours or more. Lack of sleep is linked to obesity, diabetes, high blood pressure, heart disease, stroke, and mental distress.

+ **Seven in 10** adults brush their teeth at least twice a day. About **23% of Americans** say they've skipped brushing their teeth two or more days in the past year.

favorite motivating phrases, called the Nike Free Train Instinct Hart.

In 2015, Hart partnered with Rally Health, a digital platform to help people be active, improve their diet, find doctors, and shop for health benefits. As an ambassador, he appears in health tip videos and hosts RallyFest, a live event with free boot camp classes, yoga, massages, and kids' attractions. A whopping 10,000 people showed up at last year's festival in New York, where Hart's personal trainer led workouts and Hart sweated it out alongside everyone else.

"Kevin has a real gift for inspiring people and bringing everyone to their feet," says Grant Verstandig, Rally Health founder and CEO. "Changing a diet or adopting a healthy behavior can be hard, but when you have someone who can connect with people the way Kevin can and is offering encouragement, all of sudden taking that first step feels easier."

Sometimes Hart gets people off their couches on the fly—like when he tweeted to his millions of followers that he'd be running an informal 5K the next morning, and anyone in Boston who'd like to join him could meet him at the Chestnut Hill Reservoir at 8:45 a.m. Hundreds happily complied.

"There's impromptu runs as well as workouts. I've done beach workouts where I've just popped up, me and my trainer. It could be any afternoon to say, 'I'm about to hit Central Park to do a quick five miles. Come join me,'" he says. "You'd be surprised at the turnout."

"I consider myself an entertainer who's approachable," he adds. "I engage with my fans. I'm putting people in the best position to want to be better. It's just something I love to do."

TURN UP THE LAUGHS

Lately, Hart also has comedy on the brain—in a big way.

He's building up to an hour-long comedy special, so in his spare time he often hits random comedy clubs—unannounced—to perfect his act. "I love doing the unexpected," he says. "Giving people that surprise and doing a good 30 or 40 minutes? It's a different ballgame. People love it."

While Hart loves to get out and make people laugh, he's equally happy staying in. "I'm a homebody," he says. "I'm a married man. I love to be with my wife. I love to be with my kids."

Last year Hart, who lives in Los Angeles, tied the knot with longtime girlfriend Eniko Parrish. His daughter, Heaven, is 12, and son, Hendrix, is 9. Rounding out the family are Roxie, a Doberman pinscher, and Riggs, a miniature pinscher. Together time often involves tacos, Jenga, and the whole gang piling into one bed to watch TV. "Less is more," he says. "It's just about being with each other."

Hart's harmonious home life lies in stark contrast to his childhood. His family lived in a rough neighborhood in North Philadelphia. His father struggled with drug addiction and was in and out of jail. His mother worked hard to keep him off the streets.

Life wasn't easy. "But at the same time," he says, "it's what develops character. It's what made me the man I am today. I don't believe in crying over things that can't be changed. I just believe in evolving and developing."

Taking a positive approach is his default, Hart says. His work ethic and will, however, are gifts from his mother. "Nancy Hart put 100% into making me the man that I am today. Without her I wouldn't be where I am in life," he says.

Hart is determined to pay it forward. Whether it's to inspire others that perseverance pays off, the sky's the limit, or better health is within reach, Hart intends to put his big voice to good use.

"I know the platform that I'm on. I know the eyeballs that are watching. So it's not just for myself, but to act as a constant example for other people," he says. "I want to know that I'm doing a lot more than just making people laugh."

➔ Search for the slideshow [The Best Flat-Abs Moves for Men](#) at WebMD.com.



"I ENGAGE WITH MY FANS. I'M PUTTING PEOPLE IN THE BEST POSITION TO WANT TO BE BETTER."



KEVIN HART'S HEALTHY LIVING TIPS

LIVE

"Live life to the fullest by giving yourself all chances to succeed—at the highest level—at what you do. You can't do that without an effort. Put that effort in."

LAUGH

"Don't take anything too serious, to the point where you can't smile. No matter how angry you are, life is going to go on. It's not going to stop for you. Take a chance. Show your teeth and smile."

LOVE

"Love is simple and self-explanatory. You've got a heart for a reason. Go hug somebody. Go tell somebody you love them. It's contagious."

Top left: Speaking at Nickelodeon's 2017 Kids' Choice Awards.
Middle left: Attending Just For Laughs Comedy PRO last year.
Middle right: Joining his personal trainer, Ron "Boss" Everline (left), at a "Move with Hart" session in March.
Bottom: Being honored with a star on the Hollywood Walk of Fame as Director Tim Story, rapper/actor Ice Cube and producer Will Packer look on.



GETTY IMAGES



REWINDING OUR DNA

BY SONYA COLLINS
REVIEWED BY AREFA CASSOOBHROY, MD, MPH, WEBMD MEDICAL EDITOR

CAN YOU ROLL YOUR TONGUE? Do you have a widow's peak? Does peppermint make you sneeze?

The answers are written in your DNA—along with a host of other assembly instructions that give you certain traits, skills, and susceptibilities. Your DNA also contains information about your health—both your current status and your risk of developing certain diseases in the future.

Genetic testing can tell you whether you have certain genes related to increased disease risk. In some cases, that knowledge can help you make decisions about prevention. But what good is knowing your risk for diseases such as macular degeneration, Huntington's disease, Parkinson's, or Alzheimer's if you can't (at least currently) definitively prevent them?

Now consider this: What if a procedure could rewrite the DNA that says you're likely to develop a particular disease? Or rewrite the DNA that caused the disease you're living with right now? Scientists are doing exactly that in labs around the world. They're using a new gene-editing technique called CRISPR/Cas9—or simply CRISPR—to revise the DNA of animals and plants and even human cells in

A NEW GENE-EDITING TECHNIQUE KNOWN AS **CRISPR** MAY ONE DAY ALLOW SCIENTISTS TO **DELETE DISEASES** FROM OUR GENETIC CODE

petri dishes. Now in early clinical trials in humans in the United States and abroad, CRISPR could one day offer a cure for a host of diseases.

“Whether it relates to treating disease, editing crops, or doing basic genetics experiments, CRISPR is broadly useful in many different platforms,” says Sam Sternberg, PhD, a biochemist and CRISPR expert who completed his doctorate in the lab of Jennifer Doudna at University of California, Berkeley, where CRISPR technology was developed. He is now a scientist at Caribou Biosciences, Inc. “I’m excited about the ways in which CRISPR could directly improve human health for individuals who are currently living with disease.”

HOW DOES CRISPR WORK?

Almost every cell in your body has a genome. Your genome is your complete set of DNA—all 6 billion letters. The letters A, G, C, T stand for the chemical bases that make up DNA. They are arranged in pairs that form the rungs of the ladder you may recognize as DNA’s double helix formation. The unique order of these letters makes each person unique. Think of it as your very long, personal barcode.

To edit your DNA, scientists use a process they observed in *e. coli* bacteria.

E. coli has a built-in immune system that enables it to destroy viruses that may try to attack it. CRISPR refers to the DNA sequences in the

of DNA in plant, animal, and human cells to edit away parts that could cause disease or other problems.

This DNA-cutting process includes two main steps. A messenger molecule attaches itself to the DNA of a cell and highlights the exact spot on the genome that needs to be cut. Then another enzyme comes to that spot and cuts the strands of DNA.

After the DNA is cut, the cell realizes its DNA is damaged and tries to repair it. Scientists can use the cell’s built-in DNA repair machinery to then introduce the changes they want to make to that genome.

This type of gene editing, like using word-processing software to delete or correct a typo, can shut off a gene or change the order of its genome letters.

With a single treatment, researchers recently cured a rare liver disorder in mice by editing the mutated gene that caused the disease. CRISPR might also help researchers make more specific antibiotics that can kill disease-causing bacteria without eliminating good bacteria.

TREATMENT FOR DISEASES

If successful, CRISPR could one day edit away virtually any illness driven by a genetic mutation—be it in the DNA in your own cells or in the cells of a virus that has invaded your body. The BRCA1 gene that substantially increases risk for breast cancer? The genes that cause cystic fibrosis? Muscular dystrophy?

don’t have the disease,” says Charis Eng, MD, PhD, who is chair and founding director of the Genomic Medicine Institute at Cleveland Clinic.

Researchers are trying out CRISPR in many diseases. The first attempt to use the technique in humans began last October in a clinical trial in China. Scientists injected CRISPR cells intended to destroy non-small cell lung cancer into a patient with an aggressive form of the disease. They don’t have results yet; the study is still recruiting participants and will be complete in April 2018.

In the first CRISPR trial to get the green light in the U.S., doctors at the University of Pennsylvania will test the safety of CRISPR therapy in 18 people with various cancers; the trial has not yet started.

Elsewhere, scientists are searching for a CRISPR-based cure for HIV. Attempts so far have failed. Still, scientists are pressing on.

Cancer and HIV are just the tip of the proverbial iceberg. “The research is so widespread,” says Eng. “You name it.” Scientists are studying the potential of CRISPR to combat countless problems in plants, animals, and cell cultures (cells living in petri dishes).

RISKS VERSUS BENEFITS

CRISPR isn’t science’s first method of gene-editing. But it is the easiest, most precise, and most broadly applicable.

“It makes what was once an arduous, time-consuming, and costly process into something that is very fast and

genes puts the pressure on bioethicists and regulators to address a bevy of concerns about the technology in a hurry.

First, the technology may run the risk of “over-editing” the genes, says Eng. “While we are editing the gene that we want to, there could be off-target effects, so you might be editing another [very similar] gene and not even know it, introducing a second or third mutation into the gene.”

It would be difficult to predict the consequences of that inadvertent editing. Before CRISPR can be ready for use in humans, “We have to be certain that the benefits outweigh any risks,” says Eng.

Researchers at several institutions are exploring techniques to ensure that CRISPR cells edit only their specific targets.

ETHICAL CONCERNS

Technical glitches aside, CRISPR gives humans a power to manipulate life that they have never had before. Whether it’s for use in people, crops, or entire insect populations, CRISPR raises countless ethical questions.

While the researchers who developed this method of gene editing are interested in advancing science and potentially curing human disease, the same technology would theoretically allow specialists to edit DNA in eggs and sperm and create “designer” babies in vitro.

According to Eng, there may be some things in an egg’s or sperm’s DNA that it would be unethical not to change. “If you

OTHER DISEASE IMPLICATIONS

CRISPR gene-editing has the potential to help people living with any gene-driven disease. These conditions may be among the first in line.

DISEASES OF THE EYES

Researchers have edited the genes of diseased eye cells in animals. They have also successfully edited human stem cells that could be transplanted into diseased eyes.

VARIOUS CANCERS

Phase I clinical trials already underway in China and slated to start recruiting patients in the U.S. will test CRISPR-based treatments in various cancers.

SICKLE CELL ANEMIA

In experiments with human cells in petri dishes, researchers have used CRISPR to successfully correct the gene mutation that results in sickle cell anemia, a

lifelong condition that causes chronic pain, fatigue, inflammation, and other health problems.

BETA THALASSEMIA

Researchers have corrected the gene mutation for beta thalassemia in human cells in petri dishes. This blood disorder leads to lack of oxygen in many parts of the body.

CYSTIC FIBROSIS

Researchers have used CRISPR to edit cells in petri dishes containing the gene defect that causes cystic fibrosis, an inherited life-threatening disease of the lungs and digestive system.

down to offspring for all generations to come. Some argue that humans should not have this level of control over human reproduction under any circumstances. Even those who would support editing DNA in the name of disease prevention might ask where to draw the line.

The National Academies of Science and Medicine acknowledged this question in a recent report. The Academies support continued research

scientists to hold off on gene editing intended to enhance an otherwise healthy genome. That is, don’t create designer babies just yet—a concept that’s still very far away from becoming a realistic possibility.

Given the potential benefits, CRISPR-based cancer treatments might be among the least controversial and perhaps the first that doctors may be able to offer their patients.

“I suspect that any concerns may

“IF THIS WORKS, IMAGINE CORRECTING GENE AN INHERITED DISEASE INTO...

MUTATIONS SO THAT YOU CAN TURN SUDDENLY YOU DON’T HAVE THE DISEASE.”

bacteria’s genome that help it identify threatening viruses. When the system is triggered, the bacteria cut the DNA of the offending virus in half. Scientists are now learning to use that same DNA-cutting process to cut sections

Their genetic codes, found in your genome, inside almost every cell in your body, could be snipped out.

“If this works, imagine correcting gene mutations so that you can turn an inherited disease into...suddenly you

very inexpensive. In addition, we now know that these CRISPR components work effectively in different cell types,” says Sternberg.

The speed and ease with which CRISPR allows researchers to edit

can turn a lethal disease or, even worse, a disease that does not claim life quickly but rather leads to a life of misery, would it not be good to do something?” she asks. But editing the genes of eggs and sperm changes the DNA that would be passed

into gene-editing aimed at treating and preventing disease in cells that are not passed onto offspring. They support research into editing inherited genes only in the case of serious diseases and disabilities. But the report admonished

disappear when it comes to treating living patients by editing their DNA,” says Sternberg. “If CRISPR allows scientists and doctors to prevent suffering, then why shouldn’t we support it?”

➔ Search for the video [What Is Precision Medicine?](#) at [WebMD.com](#).

THE RACE FOR AN ANTI-AGING PILL



BY MATT SMITH
REVIEWED BY AREFA CASSOOBHOY, MD, MPH
WEBMD MEDICAL EDITOR

CAN A PILL SLOW THE EFFECTS OF AGING?
SOME DRUGS ALREADY SHOW PROMISE FOR
IMPROVING THE HEALTH OF THE BODY'S CELLS.

THE NO. 1 RISK FACTOR FOR all the big diseases—cancer, heart disease, Alzheimer's—is aging. But instead of treating the diseases, could a drug treat the aging process itself?

That's the idea behind a growing area of research drawing extensive support from both government and private donors, including millions from Silicon Valley executives like Microsoft co-founder Paul Allen and venture capitalist Peter Thiel. While federal science agency budgets have struggled in the past decade, funding at the National Institute on Aging has risen more than 50% since 2007.

Researchers are seeking a drug to push back the most serious consequences of aging—and

GETTY IMAGES

Preventing mitochondria running wild and burning out can head off effects like inflammation—a common contributor to age-related diseases.

keep people healthy, active, and alert years longer, a notion they call *health span*.

“I’m not interested in creating a population that lives to be 200, because that would be a problem for the world we live in,” says Corrina Ross, a biologist at Texas A&M University in San Antonio. “But if we can keep people out of nursing home care and reduce the number of Alzheimer’s and Parkinson’s patients—that would be ideal.”

What scientists know about aging has advanced sharply in the past two decades, as they learn more about

smoking and [other factors], but who didn’t have diabetes,” says Steven Austad, PhD, chairman of the biology department at the University of Alabama at Birmingham. “It turned out the diabetics on metformin were living longer than the non-diabetics who were not on metformin. ... It was very, very intriguing.”

Austad is a biogerontologist and scientific director of the American Federation for Aging Research. The organization is trying to raise about \$65 million in federal and private funding for what Austad says would be the first human trial of an anti-aging drug.



what drives the aging process within cells. With the race on to find an anti-aging pill, two of the most promising candidates are drugs that already exist: metformin and rapamycin.

Metformin

Doctors have prescribed metformin, the most common drug to treat type 2 diabetes, for about 60 years. But it’s received new attention as a possible anti-aging drug after researchers in Britain found that people with diabetes who took it outlived some of their peers who did not have the disease by 15%.

“They compared them to a whole bunch of people who were matched for weight and

Researchers would give the drug to people ages 65 to 80 with no chronic conditions, then wait to see how long it takes until their next major health problem shows up, Austad says.

Scientists believe the drug works in the mitochondria, the powerhouses in the body’s cells that convert sugars like glucose into energy. Austad says metformin makes those powerhouses run more efficiently, reducing the release of substances known as free radicals. Those compounds can damage cells, impairing their ability to reproduce or causing defects.

Metformin may also activate an enzyme that regulates the body’s demand for energy. Austad says that activation mimics the effect

of a low-calorie diet, something researchers say can extend lifespan in laboratory animals.

Rapamycin

Biologist Ross is one of several scientists who has looked into the potential life-extending effects of rapamycin. This potent drug, also known as sirolimus and the brand name Rapamune, is most often used in chemotherapy and to keep the bodies of transplant patients from rejecting a new organ. Studies show that the drug can extend lifespan in mice, roundworms, and marmosets, a species of monkey.

Like metformin, rapamycin works on a cell’s mitochondria, where it may change how cells burn glucose, Ross says. Researchers suspect rapamycin can keep the mitochondria running smoothly longer.

“The image I teach to my students is the idea of a factory running out of control, and it’s just spewing stuff out the windows, and you’ve got a negative cascade effect,” Ross says.

Preventing mitochondria running wild and burning out can head off effects like inflammation—a common contributor to age-related diseases.

Rapamycin “works in everything from yeast to mice. It works in multiple mouse strains and backgrounds. It works in both sexes,” says biologist Brian Kennedy, PhD, former president of the Buck Institute on Aging in Novato, California. “I think it’s really exciting.”

For example, the drug has extended lifespan in mice by 30% to 50%, Austad says. And multiple animal studies show its promise for protecting against cancer and heart disease, as well as degenerative brain

disorders like Alzheimer’s.

But rapamycin has some powerful side effects. It can cause mouth sores, cataracts, and diabetes. It can also raise the risks of infection, bleeding, and some types of cancers, such as skin cancer. It can cause high blood pressure, fever, and anemia.

Kennedy says much of the rapamycin research now underway aims at figuring out how to reduce these side effects. What researchers know about the drug’s side effects comes from people who already have serious health problems and who usually take the drug in combination with other drugs. But they don’t know whether those same issues would happen in healthier people taking rapamycin on its own.

So while rapamycin appears to produce more dramatic results, metformin is likely to get a clinical trial in humans first, Kennedy says.

“Metformin has been in millions of people. It’s pretty safe as drugs go,” he says. And as doctors and scientists delve deeper into anti-aging research, “the last thing we want is a drug that’s going to cause toxicity and have something like that happen, because that’s going to set the whole deal back.”

Ross’ marmoset study, published in 2015, was the first to look at rapamycin’s side effects in healthy primates. Like humans, marmosets have a higher risk of heart problems and metabolic illnesses when they’re obese. The study found no notable metabolic problems in a group of the monkeys who received rapamycin in human-equivalent doses for a year, and they lost significant amounts of body fat in the early months.

As the search for an anti-aging drug goes on, scientists keep their eye on the end goal. Kennedy says being able to prevent some of the most debilitating age-related illnesses holds out the hope of a better life.

“We’re better at keeping people alive with various diseases of aging, but we rarely bring them back to full health,” he says. “I think it’s going to be much better for the quality of life of the individual, and much better economically, if we can just keep them from getting sick in the first place.”



Other contenders

Beyond metformin and rapamycin, research has looked at the potential anti-aging role of various drugs, hormones, and food compounds, with mixed or uncertain results:

Resveratrol, a compound found in grapes and nuts, may reduce stress that leads to cell aging. Research shows it can extend lifespan in yeast, worms, and fish, but researchers haven’t seen these effects in humans yet.

Acarbose, a diabetes drug that can block the body’s absorption of carbohydrates, shows promise in male mice but did little for females, says biologist Brian Kennedy, PhD.

A hormone called 17-alpha estradiol—a type of the female hormone estrogen—shows promise for extending longevity in mice, says Steven Austad, PhD. However, the side effects haven’t been investigated enough to determine what risks it may pose.

HEALTH HAPPENINGS

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Safety Never Felt So Good

Enjoy therapeutic benefits from the most affordable, American-made walk-in tub on the market! Receive \$1,500 off your new Safe Step Walk-In Tub today.

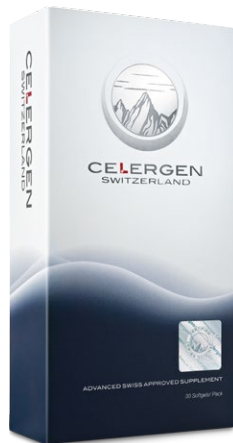
BuySafeStep.com



Natural way to help heal bruises & spider veins

High-quality, soothing, botanically rich formula concentrated with Arnica Montana and MSM in a convenient portable size helps to get rid of bruises and spider veins. A gentle "no touch" applicator dispenses non-greasy, fragrance-free gel without applying painful pressure to tender bruised areas.

scienceplusnature.com



Swiss Cell Therapy

Celergen is a powerful, pharmaceutical-grade Swiss cell therapy treatment that repairs damaged cells. Numerous benefits include decreased arthritic and joint pain, increased energy, the reduction of wrinkles, a strengthened immune system, and improved sleep.

CelergenUS.com or CelergenSkincare.com



Join Move Against Migraine

Move Against Migraine is an initiative created by the American Migraine Foundation. We're empowering the migraine patient community to become self-advocates so they can live healthy and fulfilling lives. #MoveAgainstMigraine

americanmigrainefoundation.org/move-against-migraine/

SUMMER TREAT

Sweet Tart

Thought to originate in Asia, these fab fruits were likely carried to Europe by birds and to America by English colonists. Chock-full of disease-quashing compounds, cherries make a succulent snack for hot summer days.

CHEER UP, FRUIT FANS:

Cherries are back in season. These vibrant stone fruits not only taste delicious but also offer a decent amount of vitamin C (16% of an adult's daily value per cup) and fiber (12% of an adult's daily value per cup). Their deep red hue comes from disease-fighting antioxidants known as anthocyanins, potent plant chemicals that appear to slow cancer cell growth and quell inflammation. Some research suggests that the red pigments in tart cherries may also ease arthritis pain and headaches. All good reasons to start enjoying.

—ERIN O'DONNELL

→ Fruit Fact

Most Americans eat about two pounds of cherries annually.

➔ Search for the video **7 Tasty Zucchini**
Recipe Ideas at WebMD.com.

3 WAYS

Summer Squash

Get to know these delicious yellow and green squash varieties, such as crookneck and patty pan, ripening now. They're inexpensive, calorie-light, and brimming with beneficial antioxidants.



1

A SUPER SOUP

Squash and Corn Chowder

In addition to squash, this flavorful soup features other summer favorites, such as corn and scallions. Serve the soup warm or cold with a crusty whole grain roll.

➔ **THE MIX**
Summer squash +
scallions, potatoes,
corn, whole milk,
fresh thyme



➕ **MAKE IT** Heat a large pot over medium heat. Chop 1 bunch of scallions, setting the green tops aside for later. Add oil to the pot and sauté scallions with 2 stalks chopped celery. Add 3 cups each

chopped squash, and 2 cups each chopped yellow potatoes, corn, and whole milk. Simmer, uncovered, until potatoes are tender, about 15 minutes. Add 1 tbsp fresh thyme. Garnish with chopped scallion tops and crumbled bacon. **SERVES 6**

PER SERVING (1 ½ CUP) | 201 calories, 10 g protein, 27 g carbohydrate, 8 g fat (2 g saturated fat), 8mg cholesterol, 4 g fiber, 8 g sugar, 310 mg sodium. Calories from fat: 34%

2

THE LIGHT LUNCH

Grilled Squash Salad

It's summer, which means it's time to fire up the grill. Here tender squash gets the chance to sizzle and top a light salad, offering a tasty way to boost the veggies in your day.

➔ **THE MIX**
Summer squash +
arugula, grape
tomatoes, lemon,
olive oil, goat cheese



➕ **MAKE IT** Slice 6 medium squash lengthwise. Lightly brush squash slices with olive oil, and grill each piece until tender, 3 to 4 minutes per side. Remove from heat. (Chop into bite-size pieces, if you like.) Make dressing: Combine

2 tbsp each of lemon juice and olive oil with salt and pepper and toss with arugula and halved grape tomatoes. Place salad on six plates. Top with grilled squash. Garnish with fresh mint and goat cheese crumbles. **SERVES 6**

PER SERVING (1 ½ CUP) | 126 calories, 5 g protein, 8 g carbohydrate, 9 g fat (2 g saturated fat), 4 mg cholesterol, 3 g fiber, 4 g sugar, 252 mg sodium. Calories from fat: 66%

3

THE MAKE-AHEAD MEAL

Summer Casserole

Bake this one-dish recipe starring summer squash early in the day while it's cooler, then serve for lunch with a green salad on the side.

➔ **THE MIX**
Summer squash + eggs,
mayonnaise, carrots, red
pepper, cheddar cheese,
cornflakes



➕ **MAKE IT** Combine 2 eggs with 1/2 cup mayonnaise. Add 1 cup grated carrot, 1 finely chopped red pepper, 1 finely chopped onion, salt, and pepper. Thinly slice 2 lbs squash. In a sprayed 2-quart baking dish, layer squash,

egg mixture, and a sprinkle of sharp cheddar. Repeat. Over the top layer, sprinkle 2 cups of crushed cornflakes tossed with 2 tbsp melted butter. Bake at 350°F for 45 minutes, until golden. **SERVES 6**

PER SERVING (1 CUP) | 228 calories, 8 g protein, 22 g carbohydrate, 13 g fat (6 g saturated fat), 94 mg cholesterol, 4 g fiber, 7 g sugar, 389 mg sodium. Calories from fat: 48%



OFF THE MENU

Build a Better Burger

An all-American food, hamburgers appear simple: A patty of cooked ground beef slipped into a bun. But to master the art of burger-making, you need to learn several essential lessons.



ANDY HUSBANDS,
CHEF, OWNER,
TREMONT 647,
BOSTON

ANDY HUSBANDS MADE HIS FIRST HAMBURGER 38 YEARS AGO, AT AGE 10. A chef and author of *Wicked Good Burgers* and the just published *Pitmaster*, Husbands takes the subject very seriously: "I think about burgers a lot," he says. "The meat and how it's cooked, the toppings, the bun—it's the whole package that makes a fine burger." Incorporate his tips to build a better burger in your own kitchen or on your outdoor grill.

MAKE IT

- Start with good quality 80/20 ground beef. The ideal size: 4- to 8-ounce patties per person, depending on the appetite of those you're serving.
- When forming a patty, work with cool hands in a cool room; otherwise, the fat may melt and leave you with a grainy burger.
- Shape the patty so that it's round and flat with straight sides so that it cooks evenly.
- Make a shallow dimple in the center of the patty to help it keep its shape as it cooks.
- Get the grill or cast iron pan really hot to get a good sear on each side. Use canola oil, which can handle higher heat than many other cooking oils, to grease the grill grates or pan.
- Cook until you've seared each side a nice dark golden brown. If you have a good instant-read thermometer, check the temperature of the meat. Medium rare is about 160°.
- When done, let the burger rest on a rack (not in its juices) for two to three minutes. That's a good time to toast the bun—Husbands recommends seeded potato buns—and prep your toppings: ketchup, mustard, ripe tomato slices, and crisp lettuce leaves. Want something a bit out of the ordinary? Try sauerkraut, chopped olives and pickles, grilled romaine lettuce, or salmon roe mixed with a little bacon, shallots, and fresh dill.

Summery Sorbets

REGISTERED DIETITIAN CAROLYN O'NEIL, MS, LD, AND AUTHOR OF *SLIM DOWN SOUTH*, PRESENTS HER FIVE FAVORITE SORBETS, REFRESHING, HOT WEATHER TREATS WITH FEWER CALORIES THAN REGULAR ICE CREAM.



CIAO BELLA
SORBETTO SICILIAN
BLOOD ORANGE

"This sorbet sings with bright, citrusy notes of blood orange, which packs a nutrition punch in the form of vitamin C. Pair with a square of dark chocolate."



WHOLE FRUIT
SORBET
STRAWBERRY

"Low in sugar for a sorbet, it's loaded with whole fruit, its flavor deepened with ruby red strawberry puree. Top with a spoonful of tangy vanilla Greek yogurt."



TALENTI ROMAN
RASPBERRY

"This sorbet boasts true raspberry flavor, fresh and refreshing. And the delicious fruit adds a healthy bonus: 3 grams of fiber per serving."



GELATO FIASCO
SORBETTO RIPE
MANGO

"Made from the sweetest variety of vitamins A- and C-rich mango, this sorbet tastes intensely of fresh tropical fruit. Garnish with pomegranate seeds."



HAAGEN-DAZS ZESTY
LEMON

"Balanced with sweetness, the lemon's lip-puckering tartness will encourage you to slow down and savor a small serving. Sprinkle with a little lemon zest for a citrus boost."

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.

➔ Search for the quiz **Grilling Test: Check Your Cooking Skills** at WebMD.com.

FOR THE WEEK

1 Day, 5 Meals: Grilled Veggies

FIRE UP THE GRILL AND COOK UP A WEEK'S WORTH OF VEGGIES. THINK BASKETS OF CHERRY TOMATOES AND BUTTON MUSHROOMS, SLICED EGGPLANT, STEMS OF ASPARAGUS, WEDGES OF BELL PEPPERS, PLANKS OF ZUCCHINI, AND WHOLE SCALLIONS. YOU CAN EVEN GRILL ROOT VEGETABLES LIKE POTATOES, CARROTS, AND RADISHES.

BREAKFAST SMARTS

Make Ahead

COOL, CREAMY OVERNIGHT OATS TAKE A WINTER STAPLE TO THE SUMMER BREAKFAST TABLE. BONUS: IT'S LIKE DESSERT IN THE MORNING.



MONDAY

GET GRILLING. For the first night, prepare your grill and cook up your protein of choice (burgers, salmon, marinated tofu) and some veggies for a side. Grill more vegetables than you need and you'll be set for a week of plant-powered meals.

TUESDAY

FOR A FLAVORFUL FRITTATA, start off by heating a large ovenproof pan over medium heat. Start with a drizzle of olive oil, then add some grilled vegetables and slices of spicy Italian chicken sausage. Beat six eggs with a bit of water, salt, and pepper and pour over the veggie mixture. Cook in a 450° oven until eggs are set, about 10 minutes.



WEDNESDAY

THIS GRAIN SALAD is the perfect packable lunch. Whisk together these ingredients to make a dressing: 1 lemon, squeezed; 2 tbsp of olive oil; 1 tbsp honey; a tsp of Dijon mustard; and salt and pepper. In a large bowl, stir together a couple cups of cooked farro or barley with a rinsed can of chickpeas, 1 ½ cups chopped roasted vegetables, a bag of washed arugula, and a half cup of chopped toasted almonds.



THURSDAY

FOR A QUICK PASTA DINNER, pulse 2 cups grilled vegetables in a food processor and swirl in a tablespoon of olive oil, a handful of fresh herbs, and a pinch of red chili flakes. Pair this quick sauce with cooked tortellini.

FRIDAY

FOR A MAKE-IN-MINUTES PIZZA, brush a lavash with olive oil and broil for a minute until crispy. Top with veggies, crumbled feta, a few sprigs of oregano, and pitted kalamata olives. Bake at 400° for about 10 minutes until heated through.

Fiber-filled, make-ahead overnight oats will keep you running for hours. Plus, they're infinitely versatile.

- For each serving, combine ½ cup rolled oats, ½ cup plain Greek yogurt, and ½ cup liquid. (Milk, orange juice or almond milk are all good choices.)
- Then add extras: fruit, seeds, or chopped nuts for healthy fats and extra protein, and any extra flavoring (powdered or ground cinnamon, toasted coconut flakes, cocoa powder, a few drops of vanilla or almond extract).
- Refrigerate overnight. When you wake up, breakfast is served.

Then get creative with the add-ins. Here are some stellar combos to get you started:

- Sliced banana, maple syrup, toasted walnuts, and cinnamon
- Cubes of mango and strawberries, toasted coconut, and chopped macadamia nuts
- Mixed berries, chia seeds, a few drops of vanilla, and crystallized ginger



1



2



3



4



5

LETTUCES 101

Salad Days

The next time you make a salad, go beyond iceberg lettuce for an elevated taste treat

SOME ARE BITTER, SOME ARE SWEET, SOME CRUNCH NOISILY, SOME ALMOST melt in your mouth. To craft beautiful and flavorful salads, get to know the textures and tastes offered by each of the many varieties of salad greens, says Mindy Fox, the author of *Salads: Beyond the Bowl*. Here are her five favorites and how she likes to serve them.

1. ARUGULA

Peppery and lively, it's great on its own or mixed with other greens. Dress it lightly with lemon juice and olive oil and toss with Parmesan, walnuts, and currants.

2. RADICCHIO

This lettuce is pleausurably bitter, tender but very sturdy, with beautiful leaves. It's awesome when grilled, and it pairs well with strong flavors like blue cheese and anchovies.

3. BUTTER LETTUCES

This variety is delicate and elegant, with a mildly sweet taste. Drizzle lightly with a creamy dressing and mix gently with other light vegetables such as cucumbers.

4. FRISEE

Form its curled leaves into a little nest, which you can then fill with nuts, shaved cheeses, grains like farro, and even fried oysters. Finish with a tangy buttermilk and chive dressing.

5. ROMAINE

A great salad green for the grill, crisp and crunchy romaine shines with thinly sliced lamb and creamy Middle Eastern-accented dressings like tahini or lemon.

CUTTING EDGE

Migraines are extremely common

—in fact, they are the third most common illness in the world. Researchers believe a combination of genetic and environmental factors cause these chronic, debilitating headaches.

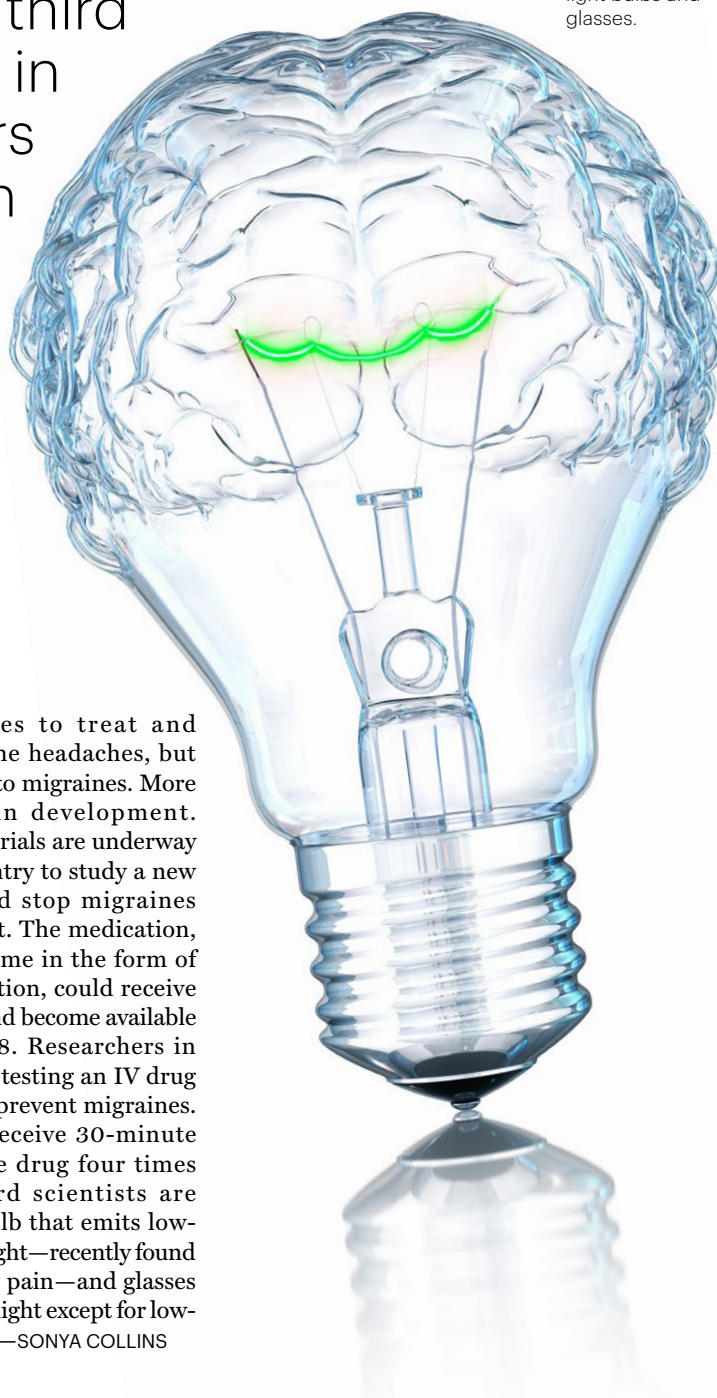
EXPERTS DEBATE WHETHER A BLOOD-vessel or nerve-cell dysfunction causes the condition. A recent study points to blood vessels. In the largest-ever genetic study on migraines, scientists uncovered 28 new locations on the human genome—the sum of your genetic material—that could predispose a person to the intense headaches. The genomic regions were rich with genes related to blood vessels.

But genes don't tell the whole story. Another study found that people who get migraines have more nitrate-modifying microbes living in their mouths than their peers. These bacteria help break down nitrates, found in foods such as cured meats and leafy greens, substances known to cause headaches in some people.

Doctors pull from a toolbox of hundreds of medications, devices,

and procedures to treat and prevent migraine headaches, but few are specific to migraines. More methods are in development. Several clinical trials are underway around the country to study a new drug that could stop migraines before they start. The medication, which would come in the form of a monthly injection, could receive FDA approval and become available as early as 2018. Researchers in Washington are testing an IV drug that could help prevent migraines. People would receive 30-minute infusions of the drug four times a year. Harvard scientists are developing a bulb that emits low-intensity green light—recently found to ease migraine pain—and glasses that filter out all light except for low-intensity green. —SONYA COLLINS

→ **Pain Relief**
Potential new migraine treatments include special light bulbs and glasses.



→ Search for the article **OTC Medicines: What Parents Need to Know** at WebMD.com.



JOHN WHYTE, MD, MPH
DIRECTOR OF PROFESSIONAL
AFFAIRS AND STAKEHOLDER
ENGAGEMENT AT THE FDA

EXPERT Q&A

Safe Storage

Do you know how to properly store your medications?



→ **Keep It Bottled Up**
Keep medications in their original child-resistant containers with the label.

WHERE YOU KEEP YOUR MEDICINES CAN AFFECT HOW WELL THEY WORK. FOR example, if you store them in a medicine cabinet in a hot and moist bathroom, you might want to reconsider. The FDA's John Whyte explains why and offers storage tips to keep you and your family safe.

Q Where should I store medications?

A Put them in cool, dry places, such as a high dresser drawer or storage box in the closet. Be sure to read the label to see if specific storage instructions are indicated, such as refrigeration.

Q What can I do to keep children from accidentally taking my medicine?

A Keep your medication out of sight and out of reach. Children could easily mistake colorful pills and sweet smelling liquids with candy. Count the pills regularly to make sure no one else is using them, and don't share your medicines. If you expect guests in your home, make sure all medications are properly secured in a locked cabinet or drawer.

Q Can I put my medication into another container?

A No. Medicines should be stored in their original child-resistant containers with the label. Other

containers, such as pill organizers and baggies, often lack child-safety features. Using the original container also ensures you know what the medication is for and when it expires.

Q Should I keep expired medicines?

A Don't be tempted to keep or use expired medicines, which can be less effective or risky due to changes in chemical composition or a decrease in strength. Even worse, certain expired medications have the potential risk of bacterial growth that can lead to more serious illnesses and antibiotic resistance.

Q How should I store medicines while traveling?

A Keep them their original child-resistant containers. If you're staying at a hotel, secure them in your room's passcode-protected safe. If you're a guest, ask the host to put your medicines somewhere out of sight and reach of children.

BY THE NUMBERS

70,000

Approximate number of children brought to the emergency room annually because of accidental medication overdoses.

82%

Percentage of U.S. adults taking at least one prescription or non-prescription medication.

Every 10 minutes

How often a child in the U.S. under age 6 is taken to the emergency room after swallowing medicine he shouldn't have.

23%

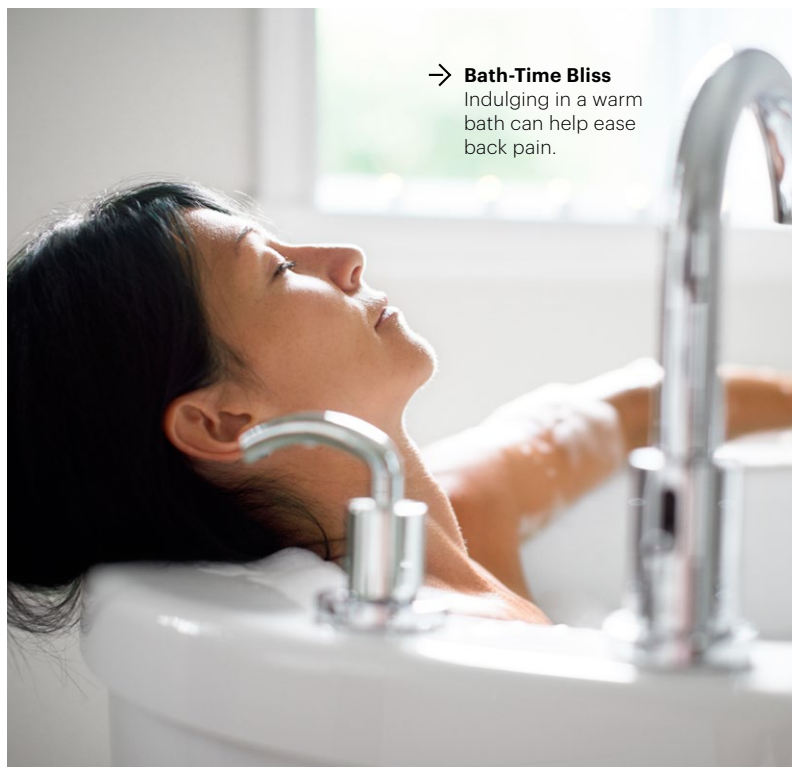
Percentage of grandparents who report storing medications in easy-to-access places, including daily-dose boxes.

→ Search for the slideshow **Good and Bad Exercises for Low Back Pain** at WebMD.com.

HEALTH HIGHLIGHTS

Back Pain Relief

At some point in their lives, four in five people will have back pain, the leading cause of disability among adults ages 45 and younger. More than 26 million American ages 20 to 64 report frequent back pain, which may lead to poor mental and physical health.



→ **Bath-Time Bliss**
Indulging in a warm bath can help ease back pain.

10 tips to prevent or ease back pain

DEVELOP A HEALTHIER, STRONGER, AND LESS PAINFUL BACK

- 1. GO HOT**
Try heating pads, heat packs, and warm baths for acute back pain.
- 2. QUIT SMOKING**
Nicotine impedes blood flow to the back, so drop the habit to prevent or relieve pain.
- 3. BE MINDFUL**
Practice mindfulness meditation to reduce stress and ease chronic back pain.
- 4. WALK IT OFF**
Even when in pain, take a short walk every hour to maintain your back muscles.
- 5. CALL YOUR DOCTOR**
Make an appointment if you have numbness, tingling, or pain that persists despite rest.
- 6. LOSE WEIGHT**
Shed extra pounds to take the pressure off your back.
- 7. DO THE TWIST**
Practice yoga to stretch and strengthen back muscles.
- 8. BE SUPPORTIVE**
When seated or driving, place a lumbar roll or rolled towel in the hollow of your back.
- 9. JOIN A GROUP**
Don't endure chronic back pain alone. Seek out local or online support groups.
- 10. FIGHT BACK**
Eat foods that fight pain-causing inflammation, like salmon, nuts, berries, and olive oil.

EXPERT TIPS



“Exercise and strengthen your core muscles. Although back pain makes it difficult to exercise, people with chronic back pain will get worse if they gain weight or if their core muscles weaken, putting additional pressure on the spine.”

A. Nick Shamie, MD
professor and chief of orthopedic spine surgery, UCLA Spine Center, Santa Monica, California



“Be patient. Back pain is a very common problem, and the vast majority of people get better with time. Stay as active as your body will allow; bed rest is no longer the recommendation.”

Khoi D. Than, MD
assistant professor, department of neurological surgery, Oregon Health and Science University, Portland, Oregon



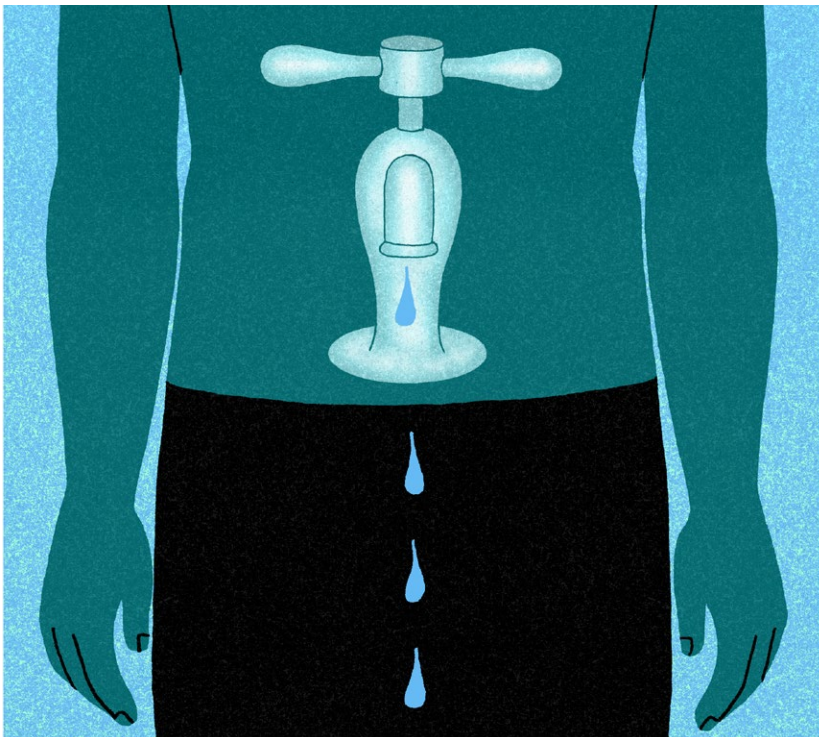
“Being active will help ward off chronic pain. But as with anything in life, practice moderation. While too little activity can contribute to chronic back pain, overdoing it can cause your back pain to flare.”

Akhil Chhatre, MD
director of spine rehabilitation, Johns Hopkins Medicine, Baltimore, Maryland

QUIZ

Major Leaks

Do you leak urine with every laugh or cough, or constantly run for the restroom? About 25 million Americans share this embarrassing dilemma. Take this quiz to see if you have incontinence.



ASK YOUR DOCTOR

Q What can I do to relieve the urge to go?

Try bladder training, in which you gradually increase the amount of time between bathroom visits. When you feel the urge to go, tighten your pelvic floor muscles to stop leaks.

Q Can medicines help control the urge to go?

Medications that relax the bladder muscles help control the urge of overactive bladder.

Q Which foods or drinks can make my incontinence worse?

Avoid soda and other caffeinated drinks, alcohol, and acidic foods like citrus fruits, which can irritate your bladder and trigger the urge to go.

Q What lifestyle changes should I make?

Drink smaller amounts of fluid, especially close to bedtime. Lose weight if you're overweight. Exercise more often but avoid weightlifting, which puts stress on your bladder. If you have constipation, treating this condition helps as well.

Quiz

1

I leak urine whenever I cough or laugh.

☐ YES

☐ NO

2

I feel a sudden urge to go, and then I leak urine.

☐ YES

☐ NO

3

I have both an urge to go and urine leakage when I laugh or cough.

☐ YES

☐ NO

4

I constantly leak small amounts of urine.

☐ YES

☐ NO

5

I can't get to the bathroom in time because of a condition that limits my movement.

☐ YES

☐ NO

6

I started to leak during my pregnancy.

☐ YES

☐ NO

Answers

1. You could have stress incontinence. A cough, sneeze, laugh, or heavy lifting puts pressure on your bladder and makes you leak.

2. Urge incontinence, also called overactive bladder, is an overwhelming and urgent need to go to the bathroom. It can wake you up at night or cause leaks.

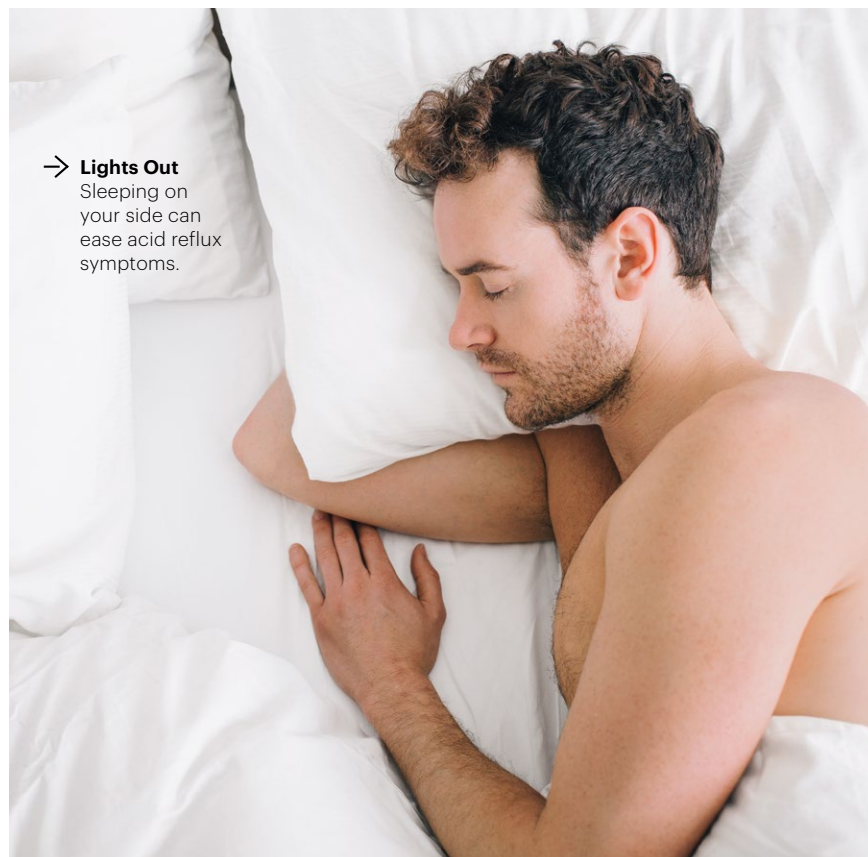
3. Mixed incontinence is a combination of stress and urge incontinence. You can have symptoms of both conditions—leakage and urgency.

4. You could have overflow incontinence. Your bladder never fully empties, so it overflows and constantly leaks. The urine comes out in dribbles, or you might wet the bed at night.

5. With functional incontinence, a problem with your nerves or a mobility issue makes it hard to recognize the urge to go or get to the bathroom in time.

6. The weight of your growing baby puts pressure on your bladder and weakens the pelvic muscles that support this organ. Incontinence can continue after you deliver.

→ Search for the article [Why Can't I Sleep?](#) at WebMD.com.



→ **Lights Out**
Sleeping on your side can ease acid reflux symptoms.

SLEEP MATTERS

Does Sleep Position Matter?

When it comes to your health, research shows that your sleep position may be as important as sleep quality

WHEN YOU CRAWL INTO BED, DO YOU LIE ON YOUR BACK? CURL UP IN THE FETAL position? Sprawl on your stomach?

Your sleep position might provide important clues about your health, says Rachel Salas, MD, associate professor of neurology at Johns Hopkins Medicine Center for Sleep.

Consider the health benefits—and drawbacks—of three popular sleep positions.

Back: Although just 8% of people sleep on their backs, this position is the gold standard, according to Salas. The prone position keeps the head, neck, and spine in a neutral position, easing back pain. Some research even suggests that back sleeping may reduce wrinkling of the skin.

But, for the 18 million adults with obstructive sleep apnea, back sleeping may make the condition worse. “The position makes the tissues in your throat relax and causes the tongue to roll back, which can [obstruct] the airway,” Salas says.

Side: A whopping 41% of people sleep in the fetal position, and another 15% sleep on their sides.

If you like to fall asleep in the fetal position, curling up on your left side can ease acid reflux. “When you sleep on the left side [where the stomach is located], it keeps the stomach lower than the esophagus and settles the gastric juices,” Salas says.

Salas also recommends sleeping on your left side if you’re pregnant because it improves circulation to the fetus.

Stomach: Although stomach sleepers snore less, according to Salas, the position wreaks havoc on the alignment of your neck and back.

“Sleeping on your stomach puts a lot of stress on your spine and can cause back pain or make it worse,” she says.

For the 7% of people who sleep on their stomach, Salas offers some advice: Roll over.

ASK YOUR DOCTOR

Q What is the best sleep position for me?

No one-size-fits-all sleep position exists. Consult your doctor for recommendations based on your health.

Q Will changing my sleep position alleviate my symptoms?

For health complaints like acid reflux and back pain, changing sleep positions could provide relief.

Q How can I switch positions?

Placing pillows in strategic positions—behind your back while lying on your side, for example—could keep you from rolling over.

Q Should I try an adjustable mattress?

Adjustable mattresses allow you to raise the head of the bed, which could alleviate chronic snoring, acid reflux, and obstructive sleep apnea.

→ Search for the video **Melanoma Check** at WebMD.com.



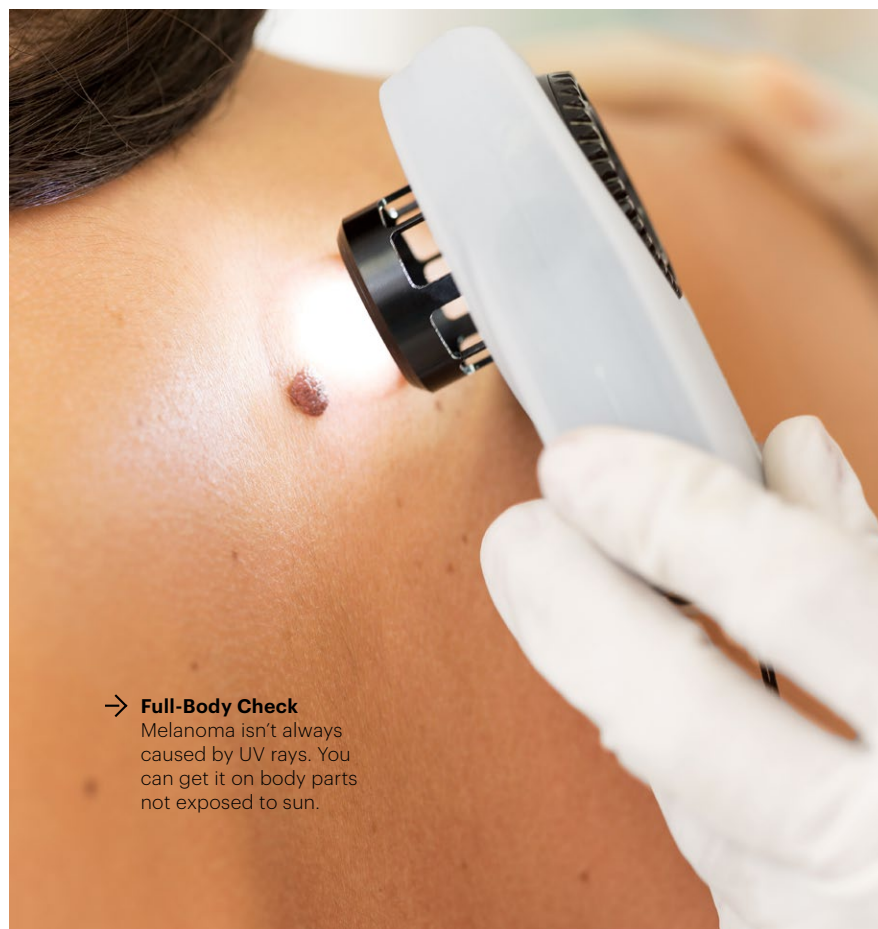
LAWRENCE MARK, MD, PHD
ASSOCIATE PROFESSOR OF
CLINICAL DERMATOLOGY,
INDIANA UNIVERSITY

DOCTOR'S OFFICE

Melanoma 101

A mole isn't the only sign of melanoma, and you can get it in surprising places. We bust five myths about this dangerous skin cancer.

DESPITE BEING ONE OF THE MOST COMMON CANCERS IN THE U.S. AND the leading cause of skin cancer deaths, melanoma remains a mystery to many Americans. Our expert corrects some common mistruths.



→ **Full-Body Check**
Melanoma isn't always caused by UV rays. You can get it on body parts not exposed to sun.

MYTH: Melanoma isn't serious.

FACT: Melanoma is more likely than squamous cell or basal cell skin cancers to spread to other parts of your body. Once it spreads, it can be life threatening.

MYTH: People with dark skin can't get melanoma.

FACT: People with darker skin are less susceptible to the kinds of melanoma caused by ultraviolet (UV) radiation damage, because they have extra melanin—a protective pigment in their skin. But they can get melanoma, and they still need to protect their skin whenever they go outside.

MYTH: A dark-colored mole is the only sign of melanoma.

FACT: In many cases, melanoma doesn't look like the colored mole with irregular borders that we expect. Instead, it's a pink spot or sore that doesn't heal. Change is what's most important. If the spot is evolving, it could be melanoma.

MYTH: You can't get melanoma on areas of your body that aren't exposed to the sun.

FACT: Not all skin cancers start from UV damage. You can get melanoma in areas that haven't been exposed to the sun, like underneath your nails, in your eyes, on the palms of your hands or soles of your feet, and inside your vulva. So don't be shy about looking at your own skin—including your genitals.

MYTH: Indoor tanning doesn't cause melanoma.

FACT: Theoretically, your risk of melanoma could be even higher from indoor tanning. Studies show that even one tanning bed exposure before the age of 30 can increase your risk of melanoma by 75%. This increase is due to the young age that people start to tan (while skin cells are still maturing) as well as the increased radiation given off by tanning booths compared to natural sunlight.

Skin Guard

SUNSCREEN ISN'T AN IMPENETRABLE SHIELD AGAINST UV DAMAGE. APPLY IT, BUT ALSO FOLLOW THESE PROTECTIVE STRATEGIES TO REDUCE YOUR SKIN CANCER RISK, SAYS **LAWRENCE MARK, MD, PHD**.

CHANGE YOUR ROUTINE

"Go outside early in the day or later in the afternoon, when the sun isn't at its peak."

WEAR PROTECTIVE CLOTHES

"Be smarter about your clothing choices. Wear a breezy long-sleeved shirt instead of short sleeves, and put on a wide-brimmed hat."

SEEK SHADE

"If you do have to be outside when the sun is strongest, between 10 a.m. and 4 p.m., sit in the shade."

WEAR SHADES

"Put on a pair of sunglasses that block 100% of UV light to prevent melanoma in your eyes, as well as cataracts."

BY THE NUMBERS: Facts and Stats on Trending Health Topics

Osteoarthritis

637

Number of open clinical studies for OA

#1

MOST COMMON
Ranking of OA among types of arthritis in the U.S.

4x

Increased risk of OA in women who are obese

11
POUNDS

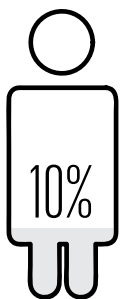
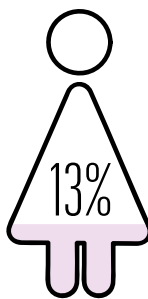
Weight loss that reduces risk of developing OA by half



12.4 MILLION

Number of adults ages 65 and up affected by OA

5x

INCREASED RISK
of OA in men who are obese**PERCENTAGE**
of men older than 60 who have OA in the knee**PERCENTAGE**
of women older than 60 who have OA in the knee

78 MILLION

Number of people expected to have OA by 2040

**30 MINUTES, 5 DAYS A WEEK**

Recommended amount of moderate, low-impact exercise, such as swimming or biking, to help OA

More than
30 MILLION

Number of adults in the U.S. affected by OA

➔ Search for the quiz [Could You Have a Thyroid Problem?](#) on [WebMD.com](#)

MY STORY

Changes for the Better

A woman makes lifestyle and medication modifications to manage life with hypothyroidism



Ups and Downs ←

Water, daily walks, and medication have helped Stena Schmitt manage hypothyroidism.

I went on synthetic thyroid medication, started working out a lot, lost weight, and felt much better. But over time, the medication became less effective. And the more ineffective the medicine, the more tired I became.

When you have hypothyroidism, you have to keep testing your blood to make sure the medication is working. I'd go every few months for tests. Until recently, the longest I've gone without having a medication dosage change was 18 months.

One thing I've noticed with hypothyroidism is that stress affects it. Over the years, I've moved states, changed jobs, got married, and every time I had a lot of stress in my life, I noticed I had a lot more medication dosage changes.

I've also learned that lifestyle changes can help hypothyroidism. For example, if I drink at least 2 liters of water per day, I feel much better. Before I was diagnosed, I used to drink soda all the time for the caffeine. Now I don't.

I also try to walk at least 40 minutes each day, which seems to help as well. Following a low-calorie diet, cutting back on carbs, and eating lots of veggies and protein helps with the energy. I'm not as consistent as I should be with these lifestyle changes, but when I am it seems to help. I've lost about 20 pounds (though it's still hard to keep that weight off).

Last January, I started a new medication. I'm working two jobs, including running my own tutoring business, which is very stressful, but I feel much better on the new medication. I have much more energy than I did before.

TEN YEARS AGO, I WAS 26, IN THE MIDDLE OF MY FIRST YEAR OF teaching special education, and felt like I was on the verge of getting fired. I wasn't productive and couldn't focus, but I didn't know why. I was tired and cold all the time. I had gained weight and was forgetful. I'd walk up to my principal or another teacher, and I'd forget the question I was about to ask. I felt like I was losing my mind.

I thought I might be depressed, so I went to my doctor, who ordered a blood test to check my thyroid. While normal blood work shows TSH (thyroid stimulating hormone) levels of .3 to 5, according to my doctor, mine were over 100. I had severe hypothyroidism. My thyroid was severely underactive.

"Every time I had a lot of stress in my life, I noticed a lot more medication dosage changes."

MY STORY DOs AND DON'Ts

DO

research hypothyroidism, which can be misdiagnosed as depression. I learned it runs in families and can skip a generation. My maternal grandmother had it, but my mother did not.

DON'T

overdo it on the days you have energy. I found that if I did too much in one day, the next day was harder.

DO

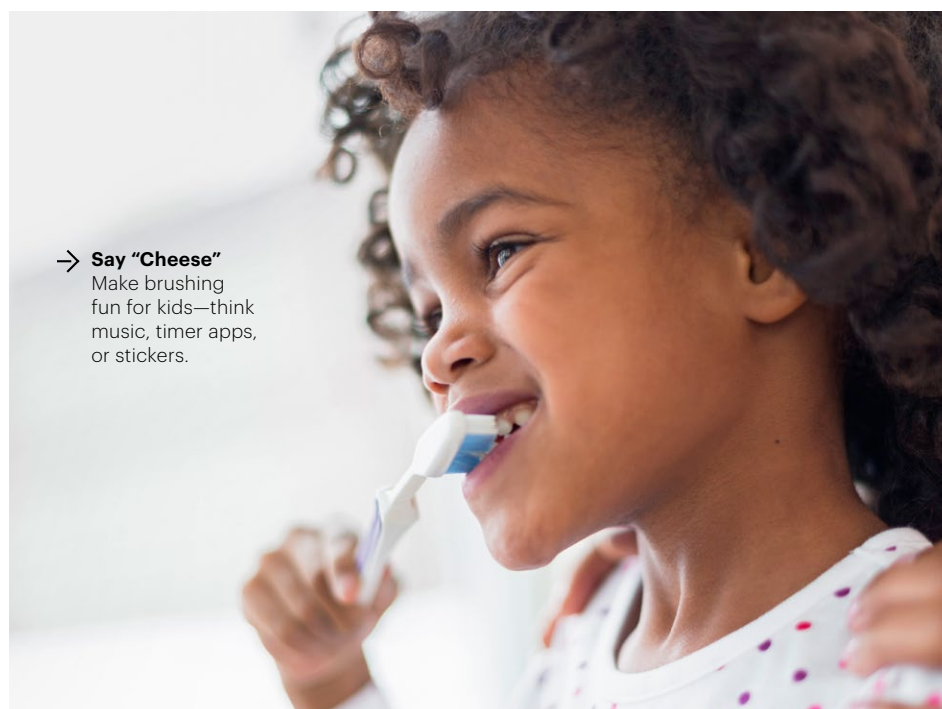
talk to your doctor if your medication isn't working. You're in charge of your health.

→ Search for the article [Choosing a Toothbrush](#) at WebMD.com.

YOUR SMILE

Brush Better

Is your brushing technique up to par?
Follow these expert tips.



→ **Say “Cheese”**
Make brushing fun for kids—think music, timer apps, or stickers.

of your teeth.” Swap your brush for a new one every three to four months or when the bristles are frayed, whichever comes first.

Choose a toothpaste with fluoride, which helps tooth enamel resist decay and fend off cavities. Tartar-control toothpaste helps prevent gingivitis, which is swelling and bleeding of your gums.

Then, brush. “Ideally, a vibrating, jiggling motion should be used,” says Furgeson. Try to keep your toothbrush at a 45-degree angle, except when you’re brushing the chewing surface of your teeth. You can also try the “roll method.” Place the bristles at a 45-degree angle, aiming toward your gum line. Then gently roll or sweep the brush toward the other end of the tooth. If you have a power toothbrush, don’t brush. Simply hold your brush in position and let it do its work.

Think you should swish water around your mouth until every last bit of toothpaste is gone? Think again. Don’t rinse after you brush or you’ll lose the benefits of the fluoride, Furgeson says. Instead, try to spit out as much of the toothpaste as you can. And remember to floss at least once a day. Flossing between your teeth will remove plaque and reach food particles that your brush may have missed.

“Don’t rinse after you brush or you’ll lose the benefits of the fluoride.”

IS THERE A PERFECT WAY TO BRUSH YOUR TEETH? ACCORDING to a study in the *British Dental Journal*, not all dentists are on the same page, and many people get conflicting advice. Danielle Furgeson, DHSc, RDH, director of the dental hygiene graduate program at the University of Michigan, helps clear up the confusion and shares her strategies for brushing your way to a healthy, beautiful smile.

First, choose the right tools. “You should always use either a soft or extra-soft toothbrush,” Furgeson says. “The size of the toothbrush should be what is comfortable for the size of your mouth so that you are able to comfortably reach all the surfaces

4 Tips

DENTAL HYGIENE EXPERT
DANIELLE FURGESON
EXPLAINS HOW TO GET
THE MOST OUT OF TEETH-
BRUSHING

PERFECT YOUR TECHNIQUE

As you brush, try to touch every part of each tooth with toothpaste. Clean the outer, inner, and chewing surfaces. And give your tongue a brush, too.

TAKE TIME

Try to brush your teeth for two full minutes. Set your smartphone or an egg timer or flip over a sand timer to alert you when time is up. Some electronic brushes have built-in timers.

DOUBLE UP

Brush at least twice a day—once in the morning and once before bed. But don’t brush more than three times a day or you may damage your gums and root surfaces.

BE GENTLE

Many people brush too hard. “It is best to be slow and gentle, with very light pressure,” Furgeson says.

Take 10

1

Season five of *Orange Is the New Black* premieres June 9. Can you give us a preview?

I think you'll definitely see what happens when people feel injustice.

Do we stick together? Do we continue fighting the powers-that-be segregated, or do we unite?

2

What has working on this show been like for you?

It really has been life changing. I've been an actress for 20-plus years and...I never in a million years thought that I would be part of something like this.

3

Has working in an image-dominated industry ever affected your self-esteem?

When I went to a performing arts high school, I was made to feel that there was something wrong with me for having curves. That brought up a lot of insecurities.

4

You have a 14-year-old daughter. What kind of self-image message do you try to get across to her?

I try to make sure that my daughter gets that beauty is not just when you look at yourself in the mirror and think, "Wow! I have great cheekbones." No, beauty comes from within and we should nurture that.

5

How has motherhood changed you?

This industry is all about waiting



Selenis Leyva
Actor, Los Angeles

for the next gig, being told you're not good enough, being rejected.

So when you have a different outlet, for me it's the best thing that could have happened.

6

Your sister is transgender. What was it like to watch her go through the transition?

I saw her at such an early age—at 17, 18—begin her transition, when that was not something that was talked about. And when I saw that she, even with all those obstacles, said, "I am who I am.

"Beauty comes from within, and we should nurture that."

7

What kinds of advocacy work have you done for the transgender community?

I work with the Stonewall Community Foundation. I've been working with The Anti-Violence Project. I'm going to set up a tour where I'm going to visit a lot of facilities that cater to the lesbian, gay, bisexual, transgender, and questioning youth community.

8

You star in *Spider-Man: Homecoming*, which comes out this summer. What was it like to act in a superhero movie?

To be part of the Marvel world is incredible. I play Ms. Warren. She's the physics teacher. In the comic books she's Mr. Warren. I love the fact that they made her a woman and gave it to a Latina actress.

9

What is your personal health philosophy?

Everything in moderation makes me happy. I make sure I exercise just enough, I eat just enough, and if I need to have a drink every once in awhile, I do so.

10

What makes you happiest?

When my daughter climbs into bed and the cat and the dog do the same. And they're all just there. I look around and I think, "I'm really lucky."
—MATT McMILLEN