# CURB THE PAIN WITH OPIOID ALTERNATIVES PAGE 44



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WEBMD MAGAZINE

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JULY/AUGUST 2018

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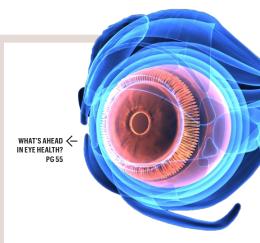












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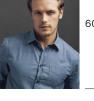
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FROM THE WEBMD TEAM

# HOW DO YOU KEEP YOUR FAMILY HEALTHY?



hances are if you're a parent, you're in a constant balancing act of one sort or another with things like food, fitness, sleep, safety, and social and emotional health on one side and all the challenges of modern life on the other. This issue is full of tips for parents, whether you're just starting out or have teens at home. There's no one-size-fits-all approach, and there are big moments to navigate along with the smaller moments you encounter every day. Sharing tips and strategies with other parents is a great way to get new ideas and perspectives. In this issue, we asked some of our staff at WebMD to tell us what they do to keep their family healthy.



Kristy Hammam Editor in Chief kristy@webmd.com



Jennifer Fields. WebMD Executive Editor

One thing I do to help keep my family healthy is cut back on snacks. I found that my kids were eating them mostly out of habit, not hunger. Now they're hungrier at mealtimes and more willing to try everything on their plates—even new vegetables.



WebMD Executive Director, News & Partnerships

We focus on the basics: eating dinner as a family, regular sleep schedules, outdoor activities, and reading together. We opt for fresh and organic over processed food when possible. Chasing two toddlers keeps us active, and our pediatrician remains on speed dial!



Tom Roseberry, WebMD Senior Director, Audience Growth

My wife and I try to follow the typical recommendations: fruits and veggies with every meal, regular exercise, and a **consistent bedtime routine.** With two young boys who like to pick up everything, regular handwashing is a must—we sing the "happy birthday" song twice to make sure they do it long enough.

#### **New & Improved**

We've just relaunched our iconic WebMD Symptom Checker, one of our most popular tools since it debuted in 2005. The new tool is easier to use, features easy-tounderstand language, and is loaded with three



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# Upfront



57%

Percentage of teens who eat dinner with their families at least five times a week. Kids who often eat dinner with their families have better relationships with their parents and less stress than those who don't.

Rids who go to bed early are healthier—and their parents are happier—than those who stay up late.

Number of times parents need to introduce a new vegetable or other food before their kids start liking it.

How much more likely families were to meet their daily fitness goals and walk an extra mile a day when they used activity trackers that awarded points for achievements.

27%

IN THE NEWS

# What Now?



COLLEEN PARETTY
Editorial Director
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A nationwide effort is underway to curtail the overprescribing of opioid painkillers and the misuse, overdoses, and deaths that often follow. But a less-reported side effect is that people who need these drugs for pain relief may no longer have access to them—where do they now turn for help? Researchers are focusing on a number of alternatives, from a new generation of opioid drugs to teaching people how to improve their body's function so they can cope with pain—even if it is not eliminated completely. "I realized my brain is adaptive," says one woman who got off prescription painkillers by opting for pain management instead. Turn to page 44 for "Beyond Opioids" and more about her inspiring story.



### Fetal Alcohol Awareness

Up to 5% of first-graders had fetal alcohol spectrum disorder in a study of 13,146 kids. These disorders can cause behavioral or developmental problems, stunt growth, or even cause death. Doctors caution that no level of alcohol consumption is safe during pregnancy.

SOURCE: JAMA



# THE POWER OF POSITIVE THINKING

About half the carriers of a gene variant called APOE 4 get dementia. But scientists don't know why the other half don't. It may be all in your attitude. Researchers surveyed 1,250 older adult carriers of APOE 4 gene variants on their beliefs about aging. They presented statements such as "True or false: The older I get, the more useless I feel." Those who were most positive about aging were significantly less likely to develop dementia over the next four years. In fact, their risk for dementia was the same as if they didn't carry the risk-increasing gene variant at all.

SOURCE: PLOS One



#### **UPFRONT**

# RISE IN BABIES BORN WITH SYPHILIS

Last year 628 babies were born with syphilis—twice as many as five years ago. New federal guidelines call for pregnant women to be screened. Expectant mothers with untreated syphilis can deliver a deaf, blind, or stillborn baby.

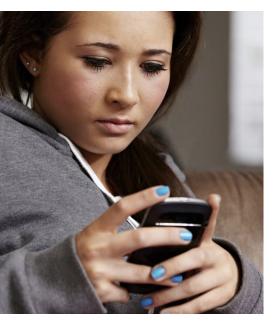
SOURCE: United States Preventive Services Task Force



#### **HELP WITH YOUR BUCKET LIST**

Do you have a bucket list? More than nine out of 10 Americans do, according to a survey of 3,056 adults across all 50 states. The most common items on those lists include travel, personal achievements, life milestones, financial goals, and daring activities. The researchers suggest you share your bucket list with your doctor. As health care increasingly becomes more personalized, your doctor could tailor health recommendations toward helping you achieve your specific goals.

SOURCE: World Health Organization



#### **SEXT-CAPADES**

Of the 15% of teens who "sext"—send sexually explicit images, videos, or messages electronically—12% have forwarded a sext without consent from the original sender. Talk to your kids about the long-term consequences of sexting.

SOURCE: JAMA Pediatrics

# <u>Diets and</u> Depression

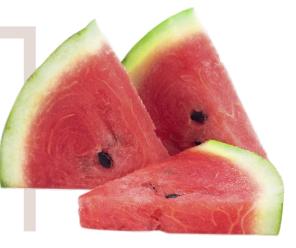
The DASH diet that many doctors prescribe to keep high blood pressure in check might have other benefits, too. Amona about 1.000 older adults. those who followed the diet most closely were the least likely to become depressed over the sixand-a-half-year study. People who followed the classic Western diet. which is high in red meat. saturated fat, and refined sugars, were most likely to become depressed. The DASH diet is rich in whole grains, fruits, and vegetables and low in fat.

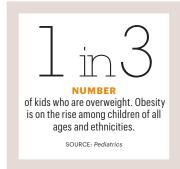
SOURCE: American Academy of Neurology

# 86

**CALORIES** in a 10-ounce wedge of watermelon.

SOURCE: USDA





# Ghrelin Gremlins

Trying to lose weight? Prepare yourself: You'll be hungrier after the weight loss, says new research from Norway. When you lose weight, your stomach releases more ghrelin, the hormone that makes you feel hungry. The ghrelin levels don't balance out over time. This could explain why it's so hard to keep weight off after a diet. That's why, researchers say, people who were once obese should see weight maintenance as a lifelong pursuit-not just the end goal of a short-term diet.

SOURCE: American Journal of Physiology-Endocrinology

# **HEAVY METAL**

A drag from an e-cigarette may include toxic metals, such as chromium, nickel, lead, manganese, and zinc. The culprit is the metal coil that creates the vapor.

SOURCE: Environmental Health Perspectives



#### **MENOPAUSE SLEEP THIEVES**

Tossing and turning during menopause? Poor sleep is a common complaint of women going through menopause. But before you ask the doctor for a sleep aid, you might want to discuss depression and hot flashes. In a study of 776 women ages 45 to 54, both depression and hot flashes increased the likelihood of trouble sleeping. The researchers suggest that the best way to improve sleep among menopausal women could be to treat these underlying issues first.

SOURCE: Sleep Medicine

### **GO NUTS**

People who've had colon cancer might reduce their risk of recurrence with one simple and delicious habit: Eat a couple handfuls of nuts each week. In a study that followed 826 stage-III colon cancer survivors for six and a half years, those who ate two servings of tree nuts per week were 46% more likely to be disease-free at the end of the study period. Some popular tree nuts include almonds, cashews, pecans, pistachios, pine nuts,

and walnuts.

SOURCE: Journal of Clinical Oncology

of U.S. adults who have depression. Women are more than twice as likely as men to have it.

SOURCE: CDC

#### **UPFRONT**

#### **BEWARE THE SPARE TIRE**

Risk of heart attack in women may have less to do with weight and more to do with how weight is distributed. Researchers followed 500,000 adults ages 40 to 69 for seven years. During that time, 5,710 who had no prior history of heart disease had a heart attack. Among the women, high waist circumference and waist-to-hip ratio increased heart attack risk more than bodymass index did.

SOURCE: Journal of the American Heart Association

# CALORIES COUNT

Trying to lose weight but not sure how? A new study shows that it's not the type of diet that matters. Calories are king. Researchers assigned 118 overweight adults to either a low-calorie vegetarian diet or a low-cal Mediterranean diet. The vegetarian diet included eggs and dairy. The Mediterranean diet emphasized plant-based foods, healthy fats, such

as olive oil instead of butter, and lean meats. Both groups saw similar improvements in weight, body-mass index, and fat mass. The only differences? The vegetarians lowered their LDL cholesterol more. The Mediterranean dieters lowered another type of fat in the blood-stream called triglycerides.

SOURCE: Current Sports Medicine Reports



# Phoning It In

#### **DOCTORS HAD 1.25 MILLION "TELEMEDICINE"**

visits last year. That's consultations via video, phone, or other electronic conferencing.

SOURCE: Frontiers in Aging Neuroscience





### PETS TO THE RESCUE

Dogs hold the title "man's best friend," but cats and other pets are pretty stellar companions, too. Their friendship is especially important to people living with depression or other mental health problems. In an analysis of 17 different studies, researchers found that pets provide comfort; alleviate worry, loneliness, and isolation; increase physical activity; and provide distraction from symptoms in people living with mental illness.

SOURCE: BMC Psychiatry

# Living

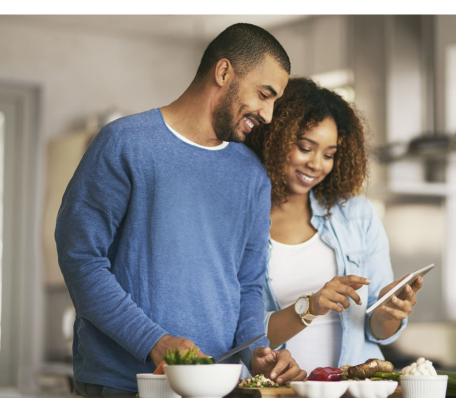


REVIEWED BY Michael W. Smith, MD
WebMD Chief Medical Director

#### MEN'S HEALTH

# **Fertility Fitness**

Having trouble fathering a child? The root of your problem may not be below your waist. It may be your waist size.



OBESITY INCREASES THE RISK OF DIABETES, HEART DISEASE, AND OTHER significant health problems. It also can harm a man's fertility. A study published last fall provided more evidence that obesity leads to lower sperm counts and less vigorous sperm.

"I always tell my patients that there's definitely a link between obesity and infertility issues," says Jamin Brahmbhatt, MD, a urologist at Orlando Health in Orlando. "Obese men take longer to conceive, they're less likely to get someone pregnant, and there's a greater percentage chance of losing that pregnancy."

Researchers estimate that a man's risk of infertility goes up by 10% for approximately every 20 pounds of excess weight he carries. And obesity may affect more than his ability to impregnate a woman. Some research suggests that obese men have a higher likelihood of fathering children who will become obese.

Brahmbhatt says that fat buildup disrupts the body's ability to make testosterone, an essential hormone in the production of sperm. That may help explain the drop in fertility in obese men, says Brahmbhatt, but "we still don't know the exact mechanism."

He also points out that obesity may not be the only factor responsible for fertility problems in overweight men. Smoking, for example, also can harm sperm. Or the problem may arise from poorly functioning testicles. Your doctor should examine all possible explanations.

Fortunately, weight loss reverses obesityrelated fertility issues. As you shed pounds, your sperm count should return to normal.

That's not the only benefit, Brahmbhatt notes. "Losing weight also will help you in the long run because you want to be a healthy dad for your kids," he says. "When I paint that long-term picture for my patients, it can be a real eye-opener and a motivator to exercise and eat right."

### 4 Tips

WEIGHT LOSS TAKES WORK, BUT A CHILD MAKES IT WORTH IT, SAYS **JAMIN BRAHMBHATT, MD**.

#### TEAM UP

Get your partner involved in your weight loss efforts. If the two of you work together, you raise your chance of success.

#### DON'T RUSH

Weight loss requires permanent lifestyle changes, which don't happen overnight. Keep making and meeting small goals. They will add up over time.

#### **FOCUS ON YOU**

If you have body image issues and dread exercising in front of others at the gym, remember: This is about you and how much you want that baby.

#### GO YOUR OWN WAY

Try smartphone apps, group fitness classes, calorie counting, consultations with a nutritionist, and more to discover what works for you and what doesn't.

REVIEWED BY Brunilda Nazario, MD
WebMD Lead Medical Director



WOMEN'S HEALTH

# **Stop the Stones**

Diagnoses of painful kidney stones are on the rise for everyone, especially women. Curb your risk with these expert tips.

IF YOU'VE HAD A BABY, YOU MIGHT ASSUME THAT YOU COULD BEAR ALMOST ANY OTHER type of pain and hardly flinch. Not so, say women who've had kidney stones.

Basic anatomy explains why kidney stones hurt so much: They form in the kidneys but make their way to the bladder via a thin tube called the ureter.

"As a stone tries to pass through the narrow junction between the upper and lower part of the ureter, you may have waves of severe pain, fever, nausea, and vomiting," says Sreedhar Mandayam, MD, associate professor of nephrology at Baylor College of Medicine. "The pain typically starts in the middle of the back, wraps around the hip, and ends up in the groin."

Kidney stones form when the salts, minerals, and other compounds in your urine build up and clump together. These painful crystals happen more frequently in men, but they're becoming more common for everyone: In the 1970s, nearly 4% of people in the U.S. had one; by the late 2000s, that number rose to almost 9%. Kidney stones for women age 18 to 39 is up sharply, according to a recent study from the Mayo Clinic, though researchers aren't sure if doctors are simply better at detecting them in women.

"My best guess is that nutritional patterns have changed over the last 20 to 30 years. People are consuming a lot more salt, which increases the output of calcium in the urine, as well as more phosphorus—which is in dark soda, like cola," says Mandayam.

Most kidney stones pass on their own. Those that don't may require medication, surgery, or shock wave therapy.

Once you've had a kidney stone, you'll likely have others unless you make some changes. You're also at risk if you have a first-degree relative who's had stones, since this problem often runs in families.

To improve your odds, stay hydrated: Mandayam suggests sipping 48 to 72 ounces of fluid a day, mostly water and diet lemonade. (Lemon juice has citrate, which attaches to calcium in urine and helps prevent crystals from forming.) Your doctor may also suggest scaling back on animal protein in favor of a more plant-based diet.

ASK YOUR DOCTOR Q Are stones in my kidneys right now? If you've had a kidney stone, the pain may have passed but is the stone gone? Are there others? You'll need an ultrasound or CT to find out.

a What was the stone made out of? There are four main types: calcium, uric acid, struvite, and cystine. Learning which one you had will help your doctor determine which dietary changes (and, in some cases, medication) are in order.

Q How much calcium, phosphorus, and uric acid is in my urine? This information, along with an analysis of the stone itself, can help your doctor figure out how to treat you. Q What's my best prevention strategy? Increasing fluids is crucial, but you may also need to make other dietary tweaks depending on the type of stone you had and what your urine tests indicate.

REVIEWED BY Patricia A. Farrell, PhD WebMD Medical Reviewer

WORK WISE

# **DIY Job Opportunity**Find ways to do more of what you love without looking for a new position



DO YOU SPEND YOUR WORKDAY DOING WHAT YOU DO BEST? ACCORDING to a Gallup poll, only a meager four in 10 Americans answer "yes" to that question, and those lucky four are more productive and less likely to quit.

If you're not one of them, "you don't have to find a new job," says Shannon Caldwell, director of the Career Management, Executive & Professional MBA Program at University of Georgia's Terry College of Business in Atlanta.

Instead, seize opportunities to do what you do best within your current position. It's a mistake to think you can only do what's in your job description. "That's a missed opportunity," Caldwell says. "You might have to work a little later and you might not get rewarded at first, but it's going to lead you to where you want to go."

#### **SHARPEN YOUR SKILLS**

If you're not using your chosen skill at work, you might need to brush up before you offer to use it at the office. Enroll in a free or cheap course. "That way you're not looking for somebody else to show you what you can be doing at work," Caldwell says. "You're bringing the knowledge to the situation."

#### **BUILD A TRACK RECORD**

Let's say you have a flair for data analysis, but you don't get to do it on the job. "Find a project that you can do that's small enough that nobody will say no," Caldwell suggests. If you can get your hands on a dataset—for example, demographic information about a segment of your clientele-analyze it yourself. Present your insights to your colleagues or your boss. "Do that a few times, and you've got a case for doing more," says Caldwell.

#### FIND OPPORTUNITIES ELSEWHERE

Your best bet is to find opportunities at your job because you can add that experience to your resume without question. But if your job just doesn't allow for you to branch out, do that data analytics project pro bono for a friend's company or a local non-profit. "Then figure out how to leverage it back at your job," says Caldwell, "to get to where you want to be."

### 4 Lessons

PEOPLE WHO REPORT HIGH JOB SATISFACTION. HAVE HIGH LEVELS OF PROFESSIONAL **ENGAGEMENT OR USE** THEIR STRENGTHS ON THE IOB MAY BE IN BETTER HEALTH THAN THEIR PEERS.

#### **USE YOUR BEST**

People who get to use their strengths at work are 20% more likely to report good health, according to a study of 87,316 employees.

#### **GET SATISFACTION**

Workers who report consistently high or upward-trending job satisfaction in their 20s and 30s are up to 64% less likely to have a diagnosed emotional, psychiatric, or nervous condition in their 40s.

#### **DON'T BURN OUT**

Employees who feel burned out at work are more likely than their peers to have headaches, stomach aches, chest pain, runny nose, sore throat, and sore muscles in any given week.

#### LIVE HEALTHILY

People who get to use their strengths on the job live healthier lifestyles-they exercise more and eat more fruits and vegetables.

REVIEWED BY Michael W. Smith, MD, CPT
WebMD Chief Medical Director

#### FITNESS SMARTS

# **Now You Know**

Ever wish you had a personal trainer on call to answer all your questions? Wish granted! Our expert shares the scoop on your top fitness conundrums.



**ASHLEY LENTZ, MS, ACSM**, **DIRECTOR OF NEW YORK'S ASPHALT GREEN** fitness and sports center, weighs in with her expertise on some of those nagging questions you want answers to.

#### CAN I REDUCE ISOLATED TROUBLE AREAS LIKE FLABBY ARMS?

**LENTZ** In short, no. While targeting an area will build the muscles to give it a more toned look, weight loss through calorie burn is the only way to reduce fat.

#### WHICH IS BETTER—EXERCISING HARDER OR LONGER?

LENTZ If you're new to exercise, overweight, or have an injury, longer

workouts at a lower intensity may be better. If you're fit or don't have much time for the gym, try shorter, higher-intensity workouts.

## IS IT BETTER TO EXERCISE IN THE MORNING OR EVENING?

**LENTZ** The best time to work out is the time you're most likely to stick to it. There's no time of day that proves to be better. Generally speaking, your workout will be most effective when your energy level and focus are highest.

### IS IT EASIER TO LOSE WEIGHT THROUGH EXERCISE OR DIET?

LENTZ Most weight loss comes from cutting calories from your diet. If you're trying to lose weight only by working out, you'll have to live at the gym—or wait a while to hit your goal. Try doing both—burn calories through exercise and cut calories from your daily food intake.

#### SHOULD I DRINK WATER OR SPORTS DRINKS?

**LENTZ** Water is best for workouts less than 60 minutes. Very rarely do we work out long enough to lose drastic amounts of electrolytes. Plus, sports drinks have added sugar and salt. Replenish lost fluids with a half cup of water for every 15 minutes of exercise.

#### **HOW CAN I FLATTEN MY BELLY?**

**LENTZ** As the saying goes, 'Abs are made in the kitchen.' Calorie restriction through diet and cardiovascular exercise is the only way to flatten your stomach, short of surgery.

### 4 Pro Tips

FITNESS DIRECTOR ASHLEY
LENTZ, MS, ACSM, SHARES HER
PERSONAL TIPS FOR STAYING FIT.

#### BOOK IT

"I schedule workouts with friends and don't cancel," says Lentz. When it's on the books, you're more likely to show up.

#### GO FIRST

Lentz exercises first thing in the morning, even before checking email. To avoid getting sidetracked, get going—the earlier the better.

#### TROT IT OUT

Have an errand to run? "If my destination is less than two miles away, I jog," says Lentz.

# FORGE A HEALTHY FOOD RELATIONSHIP

"I don't deprive or reward myself with food," says Lentz. Eat when you're hungry and use moderation.

REVIEWED BY Neha Pathak, MD
WebMD Medical Editor

#### MIND MATTERS

# **Health Notes**

Music therapy can improve everything from cognitive function after brain injury to the moods of Alzheimer's patients



IN THE SONG "TRENCHTOWN ROCK," REGGAE ARTIST BOB MARLEY SINGS, "ONE good thing about music, when it hits you, you feel no pain." Turns out, he was on to something therapeutic—and even scientific.

Music therapy is the clinical and evidence-based use of music to accomplish a person's health goals within a therapeutic setting. Its measurable benefits are recorded in multiple studies, with a personalized approach used to treat a wide range of medical conditions including PTSD, autism spectrum disorder, brain injury, asthma attacks, Alzheimer's disease, pain management, anxiety disorders, and more.

"Music has a powerful effect on us emotionally and physiologically," says Al Bumanis, a retired board-certified music therapist and now director of communications at the American Music Therapy Association. "Music therapy can benefit people of all age groups, from premature infants to persons in hospice and palliative care, across all illness and disabilities."

Its methods, he says, are highly individualized but generally rest upon composing, listening to, or playing music with a trained music therapist (either one-on-one or with a larger group of patients) to improve mood, appetite, interaction, or sleep; or to reduce anxiety, stress,

or physical pain. "The relationship with the therapist is most important because music is the means of communication—non-verbal in some cases," Bumanis says.

He offers examples: "Studies show the elderly with dementia who cannot communicate can learn basic rhythm and drumming patterns. They drum together in circles, in sync. This reduces anxiety and isolation and even lessens pharmacological needs."

He also points to Arizona congresswoman Gabby Giffords, who suffered a near-fatal gunshot wound to the head in 2011; she credits music therapy for regaining her ability to speak.

"We find people who can't communicate"—a condition called aphasia, often seen in stroke victims—"can still sing," Bumanis says. "Neuroplasticity is the concept that the brain has the ability to rewire itself. If one area of the brain is destroyed, music helps to rewire it." New pathways can be formed because singing taps into many areas of the brain, not just the injured section. "To learn to speak again, we use music, and sing as we speak. The congresswoman is an example of this," Bumanis says.

New research from Aarhus University in Denmark in 2016 underscores the music-brain connection. Its magnetic imaging genetic study tracked the impact of sound on the brain and revealed a link between music and dopamine, a neurotransmitter strongly involved in emotional behavior and mood regulation. Results showed mood improvement after music exposure—but mood deterioration after noise exposure, with measurable changes in prefrontal brain activity, the area of the brain that controls thinking and emotional response.

### 3 Tips

MUSIC THERAPY IS CONDUCTED IN A PROFESSIONAL SETTING WITH A CERTIFIED THERAPIST ONLY AFTER A REFERRAL AND EVALUATION. STILL, MUSIC'S HEALTH BENEFITS CAN EXTEND TO EVERYONE, SAYS MUSIC THERAPY EXPERT AL BUMANIS.

#### PERFECT YOUR PLAYLIST

"Music can affect your mood positively—or negatively," Bumanis says. "Be aware of your reactions to specific music." He adds that symptoms from PTSD or anxiety disorders can be triggered by a music-related memory.

#### SOCIAL HARMONY

"Making music is a healthy activity," Bumanis says. "It requires executive function of the brain, and it can be a social activity, too," which may reduce feelings of isolation.

#### **MOVE TO A GROOVE**

"Music can energize you while you exercise—but not everyone is moved by the same thing," Bumanis says. "Experiment with different songs to see what gets you going."

# Beauty





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

#### BEAUTY SMARTS

# Go for the Glow

The only safe tan is one that comes from a bottle. Here's how to make sure your faux glow looks better than the real thing with these simple self-tanner tips.

NOW THAT SUMMER'S HERE WITH LONGER DAYS, LOTS OF SUNSHINE, AND plenty of reasons to spend time outdoors, it's time to adopt a "fake it till you make it" philosophy—in regard to tanning at least. All that sun exposure may turn your skin golden, but it also puts you at risk for skin cancer and premature aging. "UV tanning isn't safe, but self-tanning lotions are a good alternative to spending time in the sun," says Papri Sarkar, MD, a dermatologist in Brookline, Massachusetts. "But you still need to wear UV protection."

Before you expose yourself, follow this expert advice for a flawless self-tanner application.

#### **FIND YOUR FORMULA**

It helps to understand how tanners work. The most common active ingredient is dihydroxyacetone, or DHA, a plant-derived sugar that reacts with the amino acids in dead skin cells and causes a browning effect, Sarkar explains. This reaction takes place in the top layers of

the skin called the stratum corneum, not the surface, so the tan gradually fades as your skin naturally exfoliates.

First, check the label. "Look for options that are pH balanced and do not contain erythrulose," says Sophia Porter, a makeup artist in Chicago. "Erythrulose takes 72 hours to develop, can look too yellow or too red, and doesn't fade evenly," she says. Instead, formulas containing DHA, which oxidizes in 24 hours, develop into a more predictable brown tint that fades uniformly.

You have the option of lotions, mousses, sprays, or wipes, but Porter suggests selecting a tanner that goes on with a tint.

"The temporary color is instantly visible so you can see where you've applied product and how concentrated it's gone on."

#### **PREP YOUR SKIN**

"The most important steps in self-tanning are exfoliate, exfoliate, exfoliate," says Pamela Flores, owner of Maquillage Pro Beauty in Houston, Texas. Since DHA deposits in dead skin cells, the driest patches are going to soak up the most tanner and look dark and splotchy, Flores says. "Target elbows, knees, toes, and fingers with a sugar or salt scrub first."

"Skipping body lotion or any oil-based products is a non-negotiable rule," says Anna Babakitis, a celebrity spray-tanner at Louise O'Connor Salon in New York City. The oils interfere with DHA and form a barrier that prevents the tanner from developing evenly. The exception to the rule: If you have extremely dry elbows and knees, a very light layer of lotion will prevent these areas from absorbing too much color. "You always want a clean canvas when applying self-tanner," Babakitis says. Make sure skin is exfoliated, clean, and totally dry before grabbing your tanner.

#### TAKE TIME TO APPLY

Slowly apply in sections from the feet up. "You'll create creases if you're bending down," Porter explains. Taking your time also helps prevent mistakes. Use enough

product to cover the skin without feeling greasy or tacky. "You want to apply using circular motions, as well as up and down motions, to ensure the tan develops evenly without any streaks," Flores says.

Trouble spots like feet, hands, and joints should only be covered with a light layer one time—do not revisit that area, Babakitis instructs. When you get to your face, work with very small amounts and massage in thoroughly—making sure to extend past your jawline to cover your ears and neck, she says.

If you don't have someone nearby who can help with your back, use a spray tanner with a 360-degree nozzle. Or cover a back brush with a tanning mitt and get to the hard-to-reach areas.

"One of the most common mistakes is forgetting to wash your hands after you've finished applying self-tanner," Babakitis says. "That's how you end up with cheese doodle fingers." Other tanning faux pas: wearing tight clothing or jewelry, applying lotions or perfumes, swimming or showering too early in the development process—all can result in an orange tint, streaks, and splotches, Porter says.

"Don't rush it," Flores says. "You have to wait—let the DHA do its job and wait for the formula to dry. If you can't wait the 15 to 20 minutes most formulas require, use a blowdryer to speed up the process, Babakitis suggests. "Dusting on a talc-free baby



#### THE SCOOP

#### Hair SOS

NO MATTER ITS TEXTURE—STRAIGHT, WAVY, OR SUPER CURLY—YOUR HAIR IS SUBJECT TO IMMINENT FRIZZ, FLUFF, OR FLATNESS WHEN SUMMER HEAT AND HUMIDITY SET IN. LAURIE HEAPS, A CELEBRITY STYLIST IN LOS ANGELES, OFFERS THESE TIPS TO GETTING LOCKS BACK IN LINE.

#### FOR SWEATY, LIMP LOCKS: Keep freshly

shampooed hair cleaner longer by immediately using a dry shampoo once the hair is dry, says Heaps. This will help slow the process of hair becoming limp and oily from sweating—you're fixing the problem before it even starts.

#### FOR FRIZZ AND FLUFF:

Increased puffiness is a sign your strands are starving for more moisture, as the cuticle laver opens up. A quick solution is to hydrate hair with products that supply humidity resistance (like White Sands Curl Up in Silk Firm Hold Mousse). When the cuticle layer is shut, tresses will then have this perfect moisture balance, Heaps says.

### **Aisle Do**

NEWS FLASH: EVEN
DERMATOLOGISTS AND
PROFESSIONAL MAKEUP
ARTISTS SWEAT. HERE ARE
A FEW OF THE PRODUCTS
THAT THEY SWEAR BY
TO KEEP THEM LOOKING
(AND FEELING) FRESH AND
FABULOUS.

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**

#### Urban Decay De-Slick Oil-Control Makeup Setting Spray (\$32)

"Nothing is worse than being outside in the hot sunshine and having your foundation, blush, or shadow melt off. Spritzing your face with this helps to weightlessly lower the temp of your makeup (thanks to some cool patented technology) to lock the makeup in place."

Hillary Kline

makeup artist, Minneapolis, Minnesota

#### PRODUCT PICK

#### Westmore Beauty Body Coverage Perfector, Golden Radiance (\$39)

"Camouflage skin imperfections and discolorations like varicose veins, age spots, and cellulite with this concealing makeup designed for skin below the neck. The best part is it stays put through sweat and water exposure for at least a few hours."

Anna Guanche, MD dermatologist, Calabasas, California

#### **PRODUCT PICK**

#### Yves Saint Laurent Waterproof Mechanical Stylo Pencil (\$30)

"Looking for a summer-friendly eyeliner? Look no further! This one goes on really smooth and can be easily smudged for a smokey eye look. And once the liner is set, it won't go anwhere."

#### Min Min Ma

celebrity makeup artist, New York City

Continued on page 21

#### AND FLYAWAYS: The easiest fix? Water! We often

**FOR COWLICKS** 

Water! We often try to fix hair by going over and over it with tools, brushes, and products to change its shape or direction. says Heaps. "but wetting the section is the best way to 'reset' stubborn hair." Then use vour blow-drver to shape the hair to your liking and spray with a strong-hold hairspray.

Continued from page 20

powder will help alleviate the stickiness and prevent it from rubbing off," she adds.

#### **DO COLOR CORRECTION**

Keeping skin moisturized will help preserve your tan, Babakitis says. The more hydrated you stay, the longer it will take for the browned cells to exfoliate. And reapply with a gradual tanner or your favorite formula. "Wait at expert pointers and you'll be golden.

least four to five days before reapplying self-tanner," Babakitis says. "Doing it too soon can create a spotty effect.

Streaky color or dark patches are not uncommon, but unfortunately there's not an easy fix for a tanner mishap. "DHA is not very forgiving," Flores says. "Exfoliating and time will be your best options to remove it." But, follow these

"You want to apply using circular motions as well as up and down motions to ensure the tan develops evenly without any streaks."

### **Dirty Secret**

"I DON'T BRUSH MY TEETH FOR TWO MINUTES."

"Brushing for two minutes is an adequate amount of time to reach and thoroughly clean all the areas of the mouth. The less time you brush, however, the more likely you are to develop cavities and gingivitis, which in turn could turn into periodontal disease."

#### **QUALITY COUNTS**

"Focus on technique if you can't commit to two minutes. The single most important factor with teeth cleaning is to angle the bristles at the junction where the gums meet the teeth. This stimulates blood flow to help prevent recession and gum disease."

#### SING A SONG

"As long as you're brushing and flossing, you likely won't have a problem. But the longer you brush, more of your mouth is covered, so you'll stay healthier. Consider investing in an electric brush with a timer. Some people hum a song. Or go through the ABCs three times, which takes about two minutes."



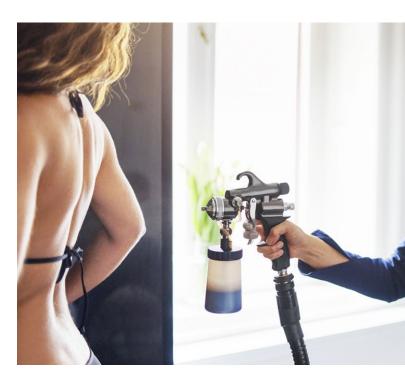
**Are Spray Tans Safe?** 

PAPRI SARKAR, MD, A DERMATOLOGIST IN BROOKLINE, MASSACHUSETTS, EXPLAINS THE RISKS OF SPRAY TANNING.

In general, a spray tan is a better choice than tanning beds and sunbathing, which expose you to UV rays, but there are some concerns.

The Food and Drug Administration has only approved DHA for the skin. It's not approved for use on mucous membranes like those found in the eyes, lips, nose, mouth, or genitals. Since the spray enters your nose and lungs, spray tans aren't FDA approved. The worry is primarily that inhaling DHA may aggravate allergies and asthma and has the potential to cause cancer.

To compensate for these factors, visit establishments that provide face masks, nose plugs, and barrier cream for lips. The room should be well-ventilated, and you should have the option to pause the spray to allow you to hold your breath.



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Summer Heat Makeup and

Beauty Tips at WebMD.com.

REVIEWED BY Karyn Grossman, MD
WebMD Medical Reviewer

EXPERT PICKS

# **Sun-sational**

From fighting free radicals to preventing fine lines, these sunscreen suggestions from Whitney Bowe, MD, clinical assistant professor of dermatology at the Icahn School of Medicine and author of *The Beauty of Dirty Skin*, all have the recommended daily dose of 30 SPF



#### 1. FOR ACNE PRONE SKIN La Roche-Posay Anthelios 60 Clear Skin Dry Sunscreen (\$20)

"Look for the words like 'non-comedogenic' on skincare products, meaning the product will not clog your pores. This non-comedogenic sunscreen has ingredients that absorb excess oil on your skin. It also contains antioxidants to help fight skin damaging free radicals and has a really smooth, dry finish."

#### 2. FOR CITY DWELLERS Supergoop! City Sunscreen Serum SPF 30 (\$42)

"If you work in a city during the summer months like I do, this is a great daytime product to wear under your makeup. This hardworking cream moisturizes your skin, fights environmental damage and UV pollution, and nourishes your skin with antioxidants, which protect from free radical damage, all while protecting your skin from sun damage and premature aging."

#### 3. FOR ALL DAY USE Colorescience Sunforgettable Brush On Sunscreen SPF 50 (\$65)

"I use this mineral-based, brush-on sunscreen throughout the day, right over my makeup. While it's not a replacement for complete sunscreen reapplication, it's great for in-a-rush touch ups. I keep one in my pocketbook and one in my car. It's a great go-to for all skin types."

# 4. FOR DRY SKIN La Roche-Posay Toleriane Double Repair Moisturizer UV SPF30 (\$20)

"I love that this is made with a prebiotic thermal spring water which helps balance the good 'bugs' (your microbiome), which naturally live on the skin and help to keep it healthy and radiant. This oil-free product is especially great for dry skin, or if you're using any products that can make skin feel dry, such as retinoids, benzoyl peroxide, or alpha hydroxyl acids."

#### 5. FOR DARKER SKIN TONES Aveeno Positively

Radiant Daily Moisturizer Broad Spectrum SPF 30 (\$15)

"This sunscreen contains soy, which is a natural brightener and will lighten up dark spots while the broad spectrum SPF protects you from getting new ones. Great for skin of color because it really evens out skin tone and doesn't clog pores, which is an added bonus."

REVIEWED BY Mohiba K. Tareen, MD
WebMD Medical Reviewer

#### DERM Q&A

# **Patchy Conditions**

Do you get red, scaly patches on your skin? It may be a chronic skin condition called psoriasis.



PSORIASIS IS A CHRONIC CONDITION TIED TO YOUR IMMUNE system. Your immune system gives false signals to your skin that makes it grow new cells too fast. Your body doesn't shed the cells, so they pile up and create red, scaly patches on your skin. Skin

injuries, infection, stress, and certain medications can make it worse. Even though psoriasis may look like it's contagious, it's not. Dermatologist **Rebecca Baxt, MD,** of Paramus, New Jersey, explains more about this skin condition.

## Q How do I know if I have psoriasis?

BAXT Psoriasis usually shows up as red, scaly patches on your elbows and knees. It can also affect your scalp and nails and other areas of your skin. It may look similar to eczema but usually isn't itchy. If you have a rash that's not getting better on its own within one to two weeks, see a doctor to determine what it is and get treatment.

- Q How is proriasis treated?

  BAXT Mild psoriasis is usually treated with topical prescription creams to reduce the rash and redness.
- QWhat if topical creams don't help?

**BAXT** If creams aren't strong enough, we can inject

low-strength cortisone. If psoriasis is widespread, UVB phototherapy is helpful—two to three times a week, in your doctor's office. A subtype of psoriasis, called guttate, often responds well to oral antibiotics. When psoriasis is severe or occurs with arthritis, we may recommend oral or injectable medications. These work wonders as they change vour immune system and reduce rash and inflammation.

- Q How did I get psoriasis? BAXT No one knows exactly what causes psoriasis. It has a genetic component and may be related to an autoimmune issue or a disordered immune system.
- Q Is psoriasis related to stress?

BAXT Stress changes your body's hormones and immune system and can make psoriasis worse. It doesn't cause psoriasis per se, but it can aggravate it.

### 4 Tips

MANAGE PSORIASIS AT HOME AND KEEP FLARE-UPS AT BAY WITH THESE SIMPLE TIPS FROM REBECCA BAXT, MD.

#### MOISTURIZE

Thick moisturizing ointments are your first line of defense. Try over-the-counter products like Aquaphor or Vaseline, says Baxt.

#### GET (A LITTLE) SUN

Natural sunlight—a few minutes, a few times a week—can help, but may increase the risk of skin cancer so don't overdo exposure.

### APPLY OLIVE OR COCONUT OIL

If your skin is scaly, especially on your scalp, leave it on a few hours or overnight, then wash off.

### TRY A SPECIAL SHAMPOO

Wash your hair with a tar shampoo or a shampoo with salicylic acid. They may help with symptoms on your scalp.

REVIEWED BY Mohiba K. Tareen, MD
WebMD Medical Reviewer

#### ANATOMY OF...

## Sunscreen

How does it work to keep your skin out of the red?

#### **BAN THE RAYS**

Sunscreen falls into two categories: mineral (also called physical) and chemical. Physical agents create a layer of protection on top of the skin to deflect harmful rays. Chemical filters create a chemical reaction in the skin that converts UV light into heat and releases it before it penetrates the skin.

#### **BEHIND THE SCREENS**

In addition to some moisturizing ingredients and active ingredients such as titanium dioxide, zinc oxide, ecamsule, oxybenzone, avobenzone, octisalate, octocrylene, homosalate, and octinoxate, a sunscreen typically contains film-forming polymers to help the sunscreen apply easily and last longer.

#### **ANCIENT SHIELDS**

The earliest sun-protection products were plant-based—ancient Greeks turned to olive oil; ancient Egyptians applied rice and jasmine extracts. Historians believe zinc oxide paste has been in use as a sun-protecting ointment since 500 B.C.

#### **CREAM OF THE CROP**

Sunscreens hit the market in the 1920s, but the formulas weren't widely used until the 1970s. After suffering a burn while hiking on a glacier in 1938, chemistry student Franz Greiter sought to create an effective sunscreen. His Piz Buin "Glacier Cream" launched in 1946 and is still sold today.

BEAUTY

#### **BURN NOTICE**

Greiter introduced the SPF or sun protection factor in the 1970s. The number measures the sunscreen's ability to prevent the burning UVB rays from damaging the skin. If your unprotected skin burns in 20 minutes, an SPF 15 is designed to prevent a burn for 15 times longer, or about five hours. Dermatologists advise wearing broad spectrum SPF 30 formulas to ensure the sunscreen protects against UVA rays as well.

#### **COVER YOURSELF**

For sunscreen to be fully effective, you need to apply it at least 15 minutes before going outside. In general, an ounce of lotion—the amount that would fill the palm of your hand—is how much you need to cover all exposed skin.

#### **AVOID A RED SCARE**

Sunscreen shelf life should last up to three years if it's stored in a cool, dry, dark environment. If you don't see an expiration date on the packaging, write the month and year you first opened it on the bottle.



# Family



REVIEWED BY Nivin C.S. Todd, MD

WebMD Medical Reviewer



PREGNANCY

# **Mom-to-Be Moves**

Exercise is key for a healthy pregnancy

WHEN YOU'RE EXPECTING, EXERCISE SHOULD BE JUST AS MUCH A PART OF YOUR routine as eating well and taking a prenatal vitamin, says Susan Lasch, MD, obstetrician/gynecologist at University Hospitals in Cleveland and assistant professor of reproductive biology at the Case Western Reserve School of Medicine. "It's free medicine, but not everyone takes advantage of it," Lasch says.

As long as you don't have any pregnancy complications, it's important to get moving.

Just ask your doctor first before beginning or continuing any exercise. Moms receive the same benefits as when they're not pregnant: improved cardiorespiratory endurance, muscle strength, and body composition, meaning that you have higher muscle mass and lower fat.

Exercise may also help you avoid excessive weight gain in pregnancy. It can reduce musculoskeletal symptoms, such as back pain or pelvic pain, and it can reduce your risk of having a large baby. Other benefits are still theoretical. Some studies show a decreased risk of gestational diabetes, and exercise before pregnancy may reduce your risk of preeclampsia. According to Lasch, women who exercise may have lower pain scores in labor.

Most women who are already exercising can continue their current exercise, such as walking, running, swimming, and stationary cycling. Many pregnant women will be comfortable walking, and swimming is nice because you get a little buoyancy. A lot of women are comfortable doing yoga, and many prenatal yoga classes are available. However, avoid anything with a high risk of falling or abdominal trauma, such as sand volleyball, wind surfing, skiing, competitive basketball, and soccer.

Exercise 30 minutes a day every day if you can. Try to do it throughout your pregnancy. Sometimes, later in the pregnancy, exercise starts to get a little harder, and women feel short of breath and give up. Try to push past that and you may get to a place where it's a little easier again. A pregnant workout buddy can also help you stay on track.

### 4 Tips

FOR A HEALTHY
PREGNANCY, MOST WOMEN
SHOULD KEEP MOVING.
SUSAN LASCH, MD,
OFFERS THIS ADVICE TO

HELP YOU EXERCISE WELL

WHILE EXPECTING.

#### STAY HYDRATED

Drink water while exercising to stay cool and prevent dehydration.

#### DON'T OVERHEAT

It's good to break a sweat, but go easy on steamy days. "You want to avoid body temperatures higher than 102 degrees F, which are associated with birth defects in the first trimester," Lasch says.

#### WATCH FOR RED FLAGS

Stop your activity if you have dizziness, chest pain, headache, contractions, fluid leakage, vaginal bleeding, or muscle weakness or pain in your lower legs.

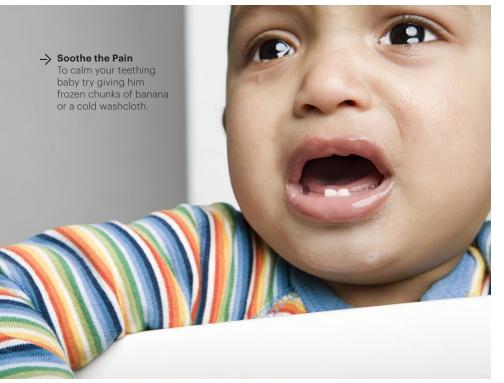
#### **GET SUPPORT**

Well-meaning friends and family may discourage you from exercising while pregnant. When in doubt, talk to your doctor, Lasch says.

REVIEWED BY Hansa Bhargava, MD WehMD Senior Medical Director

# Wisdom Teeth(ing) What are the signs of teething? Which products are safe? Our experts reveal

their top tips to navigate this tough time for babies and parents.



YOUR BABY IS CRYING. SHE'S DROOLING. SHE'S FEVERISH. BUT IS SHE teething? Sometimes it can be very hard to tell. In fact, some symptoms your mom or grandmother might say are due to teething aren't.

A recent study found that while teething may make babies cranky, it does not typically cause a full-fledged fever or serious tummy troubles, as some old wives' tales would have you believe. "A low-grade fever—less than 101-may be a sign of teething, as well as a clear, runny nose, a slight loss of appetite, diaper rash, or fussiness, but all of these are generally mild," says

Danelle Fisher, MD, chair of pediatrics at Providence Saint John's Health Center in Santa Monica, California. "If any of [your baby's] symptoms are not mild or last longer than 24 hours, you should consult your physician."

If your baby is teething, you'll want to do something to help relieve the pain, but think twice before you reach for that teething ring. A new study found that many teethers—even those labeled "BPA-free" or "non-toxic"—still contain harmful levels of toxins, chemicals, and endocrine disruptors.

"Since teething products are regulated by the CPSC [Consumer Product Safety Commission, they don't have the same chemical limits that the FDA requires for food and drugs," says Jonas Sickler from ConsumerSafety.org. And research shows that early exposure to those chemicals can potentially cause asthma, diabetes, neurodevelopment disorders, obesity, and reproductive abnormalities. Your best bet? "Consult your pediatrician when choosing a teether or pacifier for your baby," says Fisher.

While your grandmother's advice might not be on the mark, her old-fashioned remedies likely are. To help soothe a teething baby, fill a mesh basket with frozen chunks of banana or offer baby a cool washcloth to chew on (partially wet a washcloth and put it in the fridge or freezer until cold).

ASK YOUR PEDIATRICIAN Q My baby hasn't started teething yet. Is this normal? The first teeth usually pop through the gums between 5 to 7 months of age. But remember every baby is different. If you are worried, talk to your doctor.

**Q** Are homeopathic remedies for teething safe? Some homeopathic products contain belladonna, which has been linked to seizures. Always check with your doctor first.

Q Is it OK to give acetaminophen for the pain? If your baby is especially cranky, acetaminophen might help. Check with your doctor for the appropriate dosage.

At what age does my child need to see a dentist for the first time? The American Academy of **Pediatric Dentistry** recommends that a child go to the dentist by age 1 or when the first tooth appears.

REVIEWED BY Hansa Bhargava, MD WebMD Senior Medical Director

#### PARENTING

# **Teens & Alcohol**

Want to teach your kids to be smart about drinking? The best approach might surprise you.



GIVEN THE CHOICE, YOU'D PROBABLY PREFER THAT YOUR TEENS DIDN'T DRINK AT ALL. But if that sounds like a pipe dream, how do you get them to drink responsibly?

Don't give them alcohol, says Richard Mattick, PhD, a professor of alcohol and drug studies at the University of New South Wales in Sydney, Australia, and author of a new study on the topic. Some well-intentioned parents try to teach moderation

by offering their kids sips or entire drinks or allowing them to drink at home in a "safe" environment.

"The idea is that somehow it removes the novelty and makes them less interested in drinking," says Mattick. But this approach, he says, has no benefit and in fact sometimes hurts kids.

Mattick and his colleagues recruited 1,927 seventh-graders and their parents and surveyed them annually for six years. Some kids reported no access to alcohol; others got it from their parents; and others got it only from sources other than their parents.

Kids who got adult beverages from their parents—whether it was a sip here and there or entire drinks—were more likely than those who started out with no supply to eventually get alcohol elsewhere, too. They were also more likely at some point to end up binge drinking, to be harmed by alcohol in some way, and to show signs of alcohol use disorder, which includes compulsive drinking, loss of control over alcohol intake, and poor mood when not drinking. The Australian study adds to mounting evidence of the harms of giving any amount of alcohol to children.

"We think parents are trying to get them used to the idea of drinking—that it's not anything special, and that you don't need to get too excited about it," says Mattick. "But what we're getting is a worsening of drinking."

### 4 Lessons

TALK TO YOUR CHILDREN ABOUT THE RISKS AND CONSEQUENCES OF UNDERAGE DRINKING. HERE ARE JUST A FEW.

#### **DEPENDENCY**

People who start drinking before age 15 are four times more likely to be dependent on alcohol later in life.

#### RISKY SEX

Drinking increases the chances of risky sexual activity, including unprotected sex or sex with an unwanted or unintended partner.

#### TAKING CHANCES

Drinking impairs judgement, increasing the chances of drinking and driving or engaging in other risky behaviors.

#### **INJURIES AND WORSE**

Underage drinking results in more than 4,300 deaths and 189,000 ER visits each year.

#### **FAMILY**

Looking for a doctor? Use

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REVIEWED BY Hansa Bhargava, MD
WebMD Senior Medical Director



TEEN HEALTH

# **Best Shot**

Preteens, teens and kids headed off to college need a full roster of vaccinations to protect their health

WHILE AMERICAN ADOLESCENTS AGES 11 TO 17 SHOW INCREASED RATES OF NEEDING immunizations, including Tdap and meningococcal vaccines, as many as half currently fall short of getting vaccinated against HPV (human papillomavirus) and influenza, according to the American Academy of Pediatrics (AAP).

That's a real concern, says H. Cody Meissner, MD, director of pediatric infectious disease at Tufts Medical Center and professor of pediatrics at Tufts University School of Medicine: "The HPV vaccination series is recommended for both male and female adolescents because there are more than 31,000 cases of cancers

associated with HPV documented each year—and we know more than 90% of them could be prevented by the vaccine."

Vaccination rates for HPV immunization vary greatly state by state. In Rhode Island, 73% of adolescent females and 68% of males are up to date with their HPV shots, Meissner says, while the national average is considerably lower: 50% of females and 38% of males have received the age-appropriate series. Compare that to the 2016 national average immunization rates for adolescents ages 13 to 17: Some 88% received Tdap vaccine while 82% received one or more doses of the meningococcal vaccine.

U.S. vaccination rates for influenza share similar numbers: Only half of all Americans, and only one third of adolescents, get an annual flu shot. As many as four flu strains may circulate among the population each flu season, and these strains often change from year to year. It's not yet possible to produce a universal influenza vaccination that is highly effective against all strains. But don't use that as a reason not to immunize your teen—or yourself or other family members, Meissner urges.

"Even if it's only 30% effective, that's 30% better than nothing," he says. "Experience indicates that a breakthrough infection occurring after vaccination is likely to be less severe in a vaccinated individual than among individuals who were not vaccinated at all. And, getting a shot shortens the duration of your symptoms."

# Ask Your Doctor

IN ADDITION TO AN ANNUAL FLU SHOT FOR ALL PEOPLE, YOUNG AND OLD, **H. CODY MEISSNER**, **MD**, BREAKS DOWN THE IMMUNIZATIONS YOUR TEEN NEEDS, AND AT WHAT AGE.

#### TDAP (TETANUS, DIPHTHERIA, PERTUSSIS)

Preteens and teens should get one Tdap shot at age 11 or 12 years.

#### HUMAN PAPILLOMAVIRUS (HPV)

All 11- to 12-year-olds should get a two-shot series of the HPV vaccine at least six months apart. A three-shot series is needed for those with weakened immune systems and those age 15 or older.

#### MENINGOCOCCAL

All 11- to 12-year-olds should get a single shot of a meningococcal conjugate (MenaCWY) vaccine. Doctors recommend a booster shot at age 16. Teens 16 to 18 years old can be vaccinated with a serogroup b meningococcal (MenB) vaccine.

#### MEASLES, MUMPS, RUBELLA (MMR)

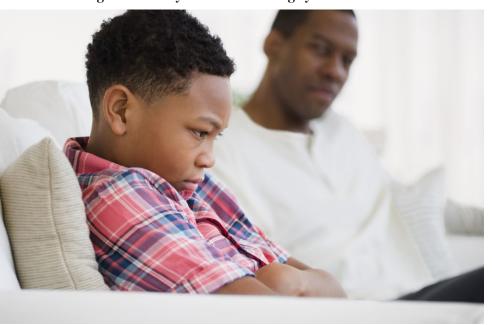
If there is an outbreak where your child goes to college or school, ask your doctor about a third (booster) shot.

REVIEWED BY Roy Benaroch, MD
WebMD Medical Reviewer

#### KIDS' HEALTH

# **Emotions in Motion**

Parents, you can teach your child how to better handle moods and strong feelings. But first you have to manage your own reactions.



YOUR 10-YEAR-OLD STORMS IN THE DOOR FROM SCHOOL, THROWS DOWN HIS backpack, and yells, "I hate Mr. Johnson! He's the worst teacher in the world!"

#### How do you react?

A. "You can't say things like that about your teacher! That's disrespectful. When you calm down, then I'll listen to you."

B. "Of course, you don't hate Mr. Johnson. Just last week you were telling me how funny he is. Let's bake some cookies and you'll feel better." C. "So, you're having trouble with Mr. Johnson again? Here's what you should do."

D. "Wow, you sound very angry. Something really upsetting must have happened with Mr. Johnson today."

If we're honest, many of us will admit that when confronted with our kids' big emotions and moods we often pick reaction A (making negative feelings "bad"), B (minimizing and deflecting the feelings), or C (trying to solve the problem). But what kids in the grip of powerful emotions need is something more like option D.

"When emotions get complicated, kids need someone who will listen and won't jump in either to deny the emotions or try to fix the situation prematurely," says psychologist Laura Markham, PhD, author of *Peaceful Parent, Happy Kids* and *Peaceful Parent, Happy Siblings*. "Kids often don't tell us about their vulnerable feelings and emotions because they think we won't listen, or we'll get angry at them or blame them for the situation."

In many cases, they're not wrong. "As parents, we feel uncomfortable

when we see our children angry or sad or rejected," says Harvard psychologist Susan David, PhD, author of the best-selling book *Emotional Agility*. "We often rush in with good intentions to make things better—to try to fix things for our child, orchestrate a solution, or minimize the emotions. But children will really only develop emotional skills if they get practice at navigating their emotions themselves."

#### **Showing Up**

That begins with managing your own reactions to your child's emotions and moods. Instead of minimizing them, disapproving them, or trying to jump in and fix them, let your child find their way through these big feelings, with you playing the role of validating guide. David calls this "showing up."

"Showing up is about creating a space where there's a nonjudgmental acceptance of emotions," she says. "We need to help children understand that there are not good emotions and bad emotions. Emotions aren't good or bad, they just are. Every single emotion has evolved to help us understand ourselves in the world."

Try these five steps toward helping your child build his or her ability to manage moods and emotions:

1. FEEL THEM. "The point of parenting is not to prevent your child from having pain. We all want to do that, but these are learning experiences that are really important for them to have," Markham says.

2. SHOW THEM. Let your child know that in your family, if you feel angry or sad or disappointed about something, that's not a bad thing, and it's okay to show it. That doesn't mean that you can act on those feelings by, say, throwing

#### Continued from page 31

your backpack at your brother when he messes up your homework.

"You can still set consequences for negative behavior," says David. But "it's important to help children create a distinction between how they feel and what they do about those feelings."

**3. NAME THEM.** Help your child fine-tune their understanding of emotions by labeling them. With a very young child, you can ask, "How do you think the person in this book is feeling? What does his face look like?"

As children get older, ask about how they're feeling instead of assuming. "Once I was taking my daughter to a birthday party and I asked how she was feeling about going to the party," says David. "Instead of excited, she said she was feeling a little worried."

4. WIDEN THEM. Part of helping your children deal with their own emotions is helping them understand the feelings of others. If your child has come home outraged about something a friend did or said, after you've "shown up" for their emotions, pose some questions about the situation: "I wonder, if there were a fly on the wall when all that happened between you and Henry, what would the fly say?"

5. HELP YOUR CHILD PLAN. Ask questions like, "How do you want to be in this situation?" or "What would be a good way for you to respond to these feelings?" That helps them realize that their feelings may be big and strong, but they can still decide how to act on them.

"It's critical to help our children be grounded in the face of uncertainty," says David. "When we help them figure out how to make thoughtful choices about managing their emotions and who they want to be, we're cultivating skills that are essential as they grow up in a fast-paced, complex world."



#### **Stretch Their Mood Muscles**

Try these exercises to help kids build emotional skills:

When watching a TV show or movie, pause the action and ask if they can tell by body language or words what emotion the person is feeling.

Play a word game. Choose basic emotions like happy, sad, angry, and afraid and brainstorm other words that describe these emotions at different levels (like ecstatic or terrified, contented or irritated).

Try "mood charades." Write emotion words like anxious. hopeful, confident, enraged, excited, confused, and frustrated on slips of paper and mix them up in a bowl. Split into teams, and take turns acting out the emotion for vour team members to guess.

#### 3 Actions

ANGER CAN BE A PARTICULARLY TRICKY EMOTION TO MANAGE IN KIDS. IT'S OKAY TO FEEL, BUT IT'S NOT OKAY TO LASH OUT. PSYCHOLOGIST **LAURA MARKHAM, PhD,** RECOMMENDS THESE SAFE PHYSICAL WAYS OF PROCESSING ANGRY FEELINGS.

#### WORK IT AWAY

Keep squishy balls on hand. Give your child one and keep one yourself. Show her how to work out her angry feelings on the squishy ball.

#### **DANCE IT OUT**

Put on intense music and do an "angry dance."

#### RIP IT UP

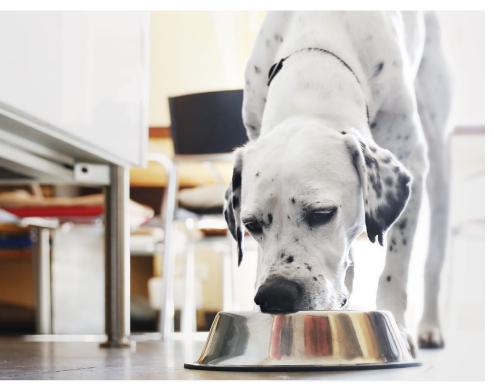
Let them draw or write what they're angry about—and then tear it into a million tiny pieces.

REVIEWED BY Will Draper, DVM
WebMD Medical Reviewer

PETS

## The Raw Truth

Research shows that giving your pets uncooked foods could put them at risk



RAW-FOOD DIETS AREN'T JUST FOR CELEBRITIES. A GROWING NUMBER OF PET owners skip dry kibble in favor of feeding their pets raw diets, too.

Sales of raw frozen and refrigerated pet foods for both dogs and cats in the U.S. increased from \$43.7 million in 2011 to \$158.7 million in 2017.

What's behind this trend? Angela Witzel Rollins, DVM, PhD, clinical assistant professor and chief of clinical nutrition services at the University of Tennessee College of Veterinary Medicine, believes pet owners want to avoid processed foods. "Some people go raw because they feel like they're going back to the ancestral diets of their pets," she says.

But filling food dishes with raw meat, crushed bones, and unpasteurized milk could backfire. A 2018 study published in the journal Vet Record tested 35 commercial raw pet foods. Some 28 tested positive for antibiotic-resistant E. coli bacteria. Researchers also found listeria and salmonella in some samples. A second study found that dogs fed raw chicken were at increased risk of paralysis. The risks led the FDA Center for Veterinary Medicine to declare raw food diets "dangerous" for pets.

Beyond the harm to their pets' health, pet owners might sacrifice good nutrition. Raw-food diets are often deficient in calcium and micronutrients like selenium, copper, and vitamin D. Adding bones to a pet's meal to increase calcium could tear up the esophagus and intestines or fracture teeth.

Pet owners committed to feeding their cats and dogs raw food diets should look for commercial foods that are pasteurized under high pressure. The process kills bacteria, putting these foods on par with commercial dog and cat food for safety, according to Rollins. Look for "high-pressure pasteurized" on the label or check the brand's website for details about how the food was processed. Or choose from among pet food brands made with cooked ingredients that have been formulated to meet the nutritional needs of your pet.

### 4 Lessons

BEFORE FEEDING PETS A RAW FOOD DIET, UNIVERSITY OF TENNESSEE VETERINARY NUTRITIONIST ANGELA WITZEL ROLLINS, DVM, PhD, HAS A FEW TIPS.

### KEEP PORTIONS

Raw-food diets are more calorie-dense than conventional kibble. Monitor portions to ensure pets aren't overeating.

#### UNDERSTAND THE RISKS

Pets exposed to salmonella in their diet will shed it in their saliva and feces, making them "walking balls of pathogenic bacteria," according to Rollins. The bacteria could be passed to owners.

### CONSIDER YOUR PET'S HEALTH

Pets that can't have a lot of protein because of pancreatitis or kidney disease should not eat raw foods, which tend to be higher in protein than dry dog and cat food.

#### BE PREPARED TO PAY

The American Veterinary Medical Association notes that commercial pet foods cost less than raw foods.



AS HE
RETURNS TO
TV TO SAVE THE
WORLD, THE ACTOR
TALKS ABOUT STAYING
IN SHAPE, JUGGLING
RESPONSIBILITIES,
AND FATHERING
WITHOUT
FEAR

KRASINSKI

or nine seasons, actor John Krasinski's best-known character, Jim Halpert, rarely strayed beyond the dreary confines of Scranton, Pennsylvania-based Dunder Mifflin, the fictional paper company that was the setting for NBC's hit comedy "The Office."

On Aug. 31, the 38-year-old actor returns to TV after a five-year absence—and fans of Jim should prepare themselves for someone wholly different. Krasinski's new television incarnation takes him all over the globe.

Cast as Jack Ryan in the eponymous Amazon Prime series based on Tom Clancy's bestselling thrillers, Krasinski plays a CIA desk jockey who wants nothing more than to analyze data and write reports. But he doesn't remain in his office for long. Krasinski's character finds himself propelled into a worldwide hunt for a terrorist.

"Jack Ryan's the kind of hero we need right now," says Krasinski. "He's just this everyday guy who has no superpowers shooting out of his hands. When he gets thrust into this hero's role, all he has to rely upon is his intelligence."

The series, says Krasinski, will follow a different plot each season but won't draw on storylines from Clancy's books. The first season, for example, offers an origin story. Viewers will watch the young Jack Ryan transform himself from a guy clearly in over his head to a formidable operative able to take on the worst enemies of the state. Rest assured: There will be explosions.

#### FROM BOSTON TO BUFF

But before he was an action hero, Krasinski grew up the youngest of three brothers in the Boston suburb of Newton. In 2001, he graduated from Brown University and moved to New York to be an actor. Four years later, he got his big break.

"The Office," based on a British series of the same name, won five Emmy awards and received more than 40 Emmy nominations. One of its biggest draws: The onscreen romance that developed between Krasinski's Jim Halpert, a paper salesman, and receptionist Pam Beesly, played by Jenna Fischer, as they weathered the painfully hilarious ineptitude of their boss and other comic extremes of office culture. In real life, Krasinski is married to the English actor Emily Blunt, with whom he has two daughters, Hazel, 4, and Violet, 2.

He also appeared on the big screen, in the romantic comedies *License to Wed* and *Something Borrowed* and the historical drama *Leatherheads*. In 2016, he starred in *13 Hours*, which chronicled the 2012 attack on the American diplomatic compound in Benghazi, Libya, and the efforts of a small security team, led by Krasinski's Jack Silva, to protect those trapped inside.

For that role, Krasinski had to get ripped. He spent three months punishing himself with muscle-building bench presses, rack pulls, sled drags, and deadlifts. He limited his diet mostly to chicken, salad, and water. His new, 9% body fat physique made headlines. It also set him up with a base of physical fitness that he works to maintain.

"13 Hours was brutal," he recalls, "but once I did it, I kept myself in shape so that I would not have to go through that again, so that I would not have to start from scratch ever again."

His workout for Jack Ryan was comparatively easy: "I did a lot of rowing, because Jack's on a crew team." He has also kept to a healthy diet, though not as restrictive as his *13 Hours* eating plan. "I'm a salad guy. I like salads with protein," he explains. "The days of eating a whole pizza are over, the days of eating a whole tub of Häagen-Dazs are over. I like to eat well, to take care of myself."

Krasinski has put his buff body to a good cause: veterans' issues. In August 2016, he took the 22 Pushup Challenge to raise awareness about mental health issues faced by military veterans. The name comes from a grim statistic: In 2013, the Veterans Administration estimated that, on average, 22 veterans commit suicide every day. Veterans' risk of suicide is 22% higher than that of non-veterans.

Like the ice bucket challenge before it, the 22 Pushup Challenge went viral, as celebrities dropped, did pushups, then posted the videos to social media. Actor Chris Pratt challenged Krasinski, and Krasinski in turn challenged the man who directed his 13 Hours training regimen, Jason Walsh, as well as Captain America star Chris Evans.

Last Memorial Day, Krasinski and Pratt together took up the Murph Challenge, a brutal workout done wearing body armor. The challenge raises money for a scholarship that honors Navy Seal Lt. Michael P. Murphy, who was killed in Afghanistan 2005.

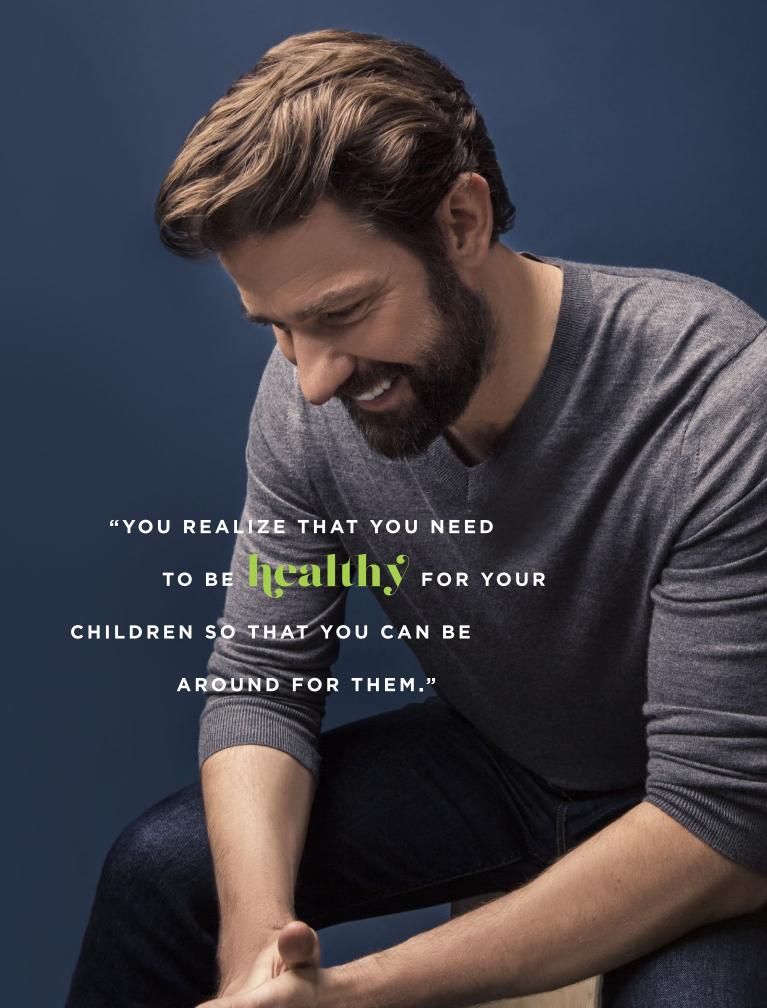
Accompanying a post to his Instagram account, Krasinski wrote, "Today we remember and honor each and every one of the brave men and women who gave their lives for us."

#### **KEEPING KIDS SAFE**

Krasinski also has reasons closer to home to keep fit: his children.

"You realize that you need to be healthy for your children so that you can be around for them," says Krasinski. "Exercise makes me feel great, and I want to do it. But I also do it so that I won't feel that tinge in my back when I lift up one of my daughters."

Like every other dad, Krasinski entered fatherhood with some fear. "It comes from knowing that I was responsible for this little life that had just entered



the world," he says. "And you fear for them whenever you don't have them in sight."

His latest film, A Quiet Place, which premiered in April and which he directed and co-wrote, serves as an amped up metaphor for Krasinski's own apprehensions about his ability to keep his daughters out of harm's way.

It takes place in a post-apocalyptic world, in which much of the population has been wiped out by vicious creatures that hunt by sound. Make a noise, and you die. Krasinski plays a father of two and husband to a pregnant wife, played by Blunt, 35. Together, they try to survive by living silently, surrounded by monsters.

Their daughter in the movie is deaf, played by deaf actor Millicent Simmonds. Krasinski, who had the entire cast deliver their lines in sign language, says Simmonds helped him better portray the silent world in which the family lived. "It was nonnegotiable for me to cast a deaf actor in the role," Krasinski told the LA Times.

It's a terrifying movie filled with jump scares and hold-your-breath tension. But it's much more than that to Krasinski.

"I was never a horror movie guy," says Krasinski, a self-described scaredy cat. But he read the script just weeks after his younger daughter Violet was born, and it spoke to him. "What drew me to it was that it was the story of a family and how far parents will go to keep their children safe."

Real life, of course, most often comes with more mundane concerns, but that does not make them any less real to parents. Psychologist Paul Donahue, PhD, says that parental worry is perfectly natural, but moms and dads need to pay attention to it and understand how it affects their children.

"Parents should ask themselves how

being over-protective," says Donahue, founder and director of Child Development Associates in Scarsdale, New York, and author of Parenting Without Fear: Letting Go of Worry and Focusing on What Really Matters. "If you always worry, your kids will feel it and internalize it."

One possible result: separation anxiety. The children become distressed and resist, for example, when their parents leave them at a friend's house or the babysitter has arrived for the evening.

"Some of that's normal," says Donahue, "but we expect that over time they'll learn to trust and feel comfortable being around other adults. If they never do, that could be a sign of anxiety, and we need to think about how that's been created or exacerbated."

Donahue emphasizes that one critical goal as a parent should be the child's eventual independence, their ability and desire to navigate the world on their own.

"We need to teach them how to be safe and smart without giving them the sense that the world is a very scary place," says Donahue.

#### MAKING A DIFFERENCE

But Krasinski and Blunt, who married in 2010, don't plan to always shield their daughters from the scarier parts of the world, especially when they have hope for change. The couple supports the Malala Fund, a non-profit founded by 2014 Nobel Peace Prize winner Malala Yousafzai. The fund works to provide schools and education to girls in countries where they're often denied basic opportunities, such as Pakistan, Afghanistan, India, and Nigeria, as well as countries that now host Syrian refugees.

"Eventually, we want to visit the schools that Malala has founded, and we want to they can best keep their kids safe without bring our girls along with us so that they



Below: In April. Krasinski and his wife, Emily Blunt, attended the premiere of A Quiet Place.

can see the important work that's being done and the difference that's being made," says Krasinski.

Right: Krasinski directed, co-wrote,

and starred in the

horror film A Quiet

Place earlier

this year

To raise awareness-and money-Krasinski and his wife raffled a double date to the Los Angeles premiere of A Quiet Place for a lucky donor to the fund. "It's such an important cause, and it just makes sense to commit to it," Krasinski says.

Over the years, Krasinski has also helped raise money for cancer research. In 2013, for example, he hosted a gala at Massachusetts General Hospital Cancer Center in Boston that tallied \$1.3 million in donations. In 2015, Krasinski and his wife joined celebrity chefs Ming Tsai and Masaharu Morimoto for a live broadcast cooking show to raise money for Family Reach, an organization that supports families of children with cancer. The event raised \$400,000.

As both Krasinski and his wife focus on their daughters and their careers, they sometimes must confront separation anxiety of their own. In recent months, for example, the production schedule for "Jack Ryan" required Krasinski to be in Montreal for extended periods. At the same time, his family had decamped for London, where Blunt was filming the reboot of Disney's classic Mary Poppins.

"In a perfect world, neither of us would be working at the same time, but that's not the nature of the business," says Krasinski, who flew to London every week to join his family.

It's a subject that he and Blunt raise with their daughters.

"When we are not working, we get to spend all this time with them, but we let them know that when there's a job, mommy or daddy may be in another country and not around for a while," Krasinski explains. "We tell them-though the older is 4, so I don't know how much either really understands—that this is the price we pay for the wonderful lives that we have."



# RAISING children without ANXIETY

For John Krasinski, like many others parenting brings moments of worry and fear. No one parents completely free of worry, says psychologist Paul Donahue, PhD. But you must find a balance between your urge to protect and your child's need for independence. Some pointers:



#### **TAKE CUES FROM EXPERIENCED PARENTS**

Your own parents or friends of older children can be models and offer feedback on concerns like safety.



#### TALK TO TEACHERS

Your child's teacher can help you better understand that risktaking-running fast, climbing, and other physical activities—is an important part of being a kid.



#### PROJECT CONFIDENCE

When you drop your child off at school or a friend's house, put on a brave face. Your demeanor will let your child know that everything's OK.



#### **KNOW THE SIGNS**

Is your child afraid to try new things or take risks, like getting on a swing? Some anxiety when a child faces the unknown is normal, but be alert if it gets in the way of everyday activities.



#### **GET SOME REST**

Lack of sleep will contribute to your own anxiety, which then gets transmitted to your child.



#### **SEEK HELP**

If you struggle to let go of your fears, talk to a mental health professional about counseling for you and, possibly, your family.



stars in "Tom Clancy's Jack will premiere or Amazon Prime

Left: Krasinski

WEBMD.COM



**NANCY WEINDRUCH WOULDN'T HAVE CALLED HERSELF AN ATHLETE IN 2015**, but she was a regular gym-goer who loved to ski, golf, and do yoga. She was excited to try something new when her sister invited her to a cycling class for the first time. But within 15 minutes of getting on the bike, she knew she was in way over her head.

The lights were dim. The music was blaring. Everyone was in sync with the high-energy, intense exercise—except her. "The instructor was encouraging everyone to give it your all, and I was looking around the room and thinking, *I can't do this*. I realized very quickly my body didn't have the endurance for this," Weindruch recalls.

She was on the opposite side of the room from the door, too embarrassed to get up and leave, and unsure she could unlock her shoes from the bike without causing a disruption. So the then-30-year-old sat down on the bike, turned its resistance to the lowest level, and slowly pedaled through the rest of the class. "When I got off the bike I felt weak in my legs, but I didn't really think

was a new class for me, and it would pass."

Three days later, she could hardly walk and was struggling to sit in a chair. "My intuition kicked in, and I thought something wasn't right," she says.

A quick Google search turned up a story about a 30-year-old woman who had similar muscle pain after a cycling class and was hospitalized with something called rhabdomyolysis, or rhabdo, for short. Weindruch didn't have all the symptoms described in the story, but she had enough that she went straight to the emergency room.

Once there, lab results confirmed she had rhabdo. She was admitted to the hospital for a week. "The pain was so excruciating that it contributed to nausea," Weindruch says. "It was unbearable. The worst pain I've ever experienced."

#### **WHAT IS RHABDO?**

Rhabdomyolysis is a syndrome involving muscle breakdown and damage. When muscles are injured, they release their contents, including a muscle enzyme, into the bloodstream. The enzyme can harm the kidneys and can cause kidney failure in up to 40% of cases. It also can harm the kidneys' ability to remove urine and other waste. Rhabdo can be even more dangerous in children when they're pushed to extremes in sports or other physical activities.

The disorder is rare—in one study, 22 people in 100,000 were known to have it—but no less alarming. Patients generally recover when they get prompt treatment, but the condition can lead to death in rare cases.

The syndrome has three classic symptoms (though not all people with rhabdo have them): muscle swelling, muscle weakness, and dark urine (from the muscle pig-

In an article on the subject in *The* American Journal of Medicine in 2016, Brogan wrote that rhabdo brought on by cycling classes was a "public health concern." She says she came to see it as that after six patients came to her hospital's ER and all had tried a cycling class for the first time. Each of them had received a free class pass. When she searched medical literature, 42 of the 46 cases she found also involved people going to a cycling class for the first time.

"Those are the patients who were most at risk because they may not have been conditioned and were using and engaging new muscle groups for the first time at an intense rate," she says. "So even if you were a different type of athlete, like a runner, and then you switch to biking and use quadri-

In her article, Brogan identifies factors that can raise your chance of developing rhabdo, including exercise intensity, conditioning, hydration, and body temperature.

Researchers say it's tough to know how many people are affected by rhabdo, but in theory, any type of muscle injury can cause it. Several studies cite incidents connected to cycling classes. A review of patients between 2010 and 2014 at one New York City hospital uncovered 29 rhabdo cases, 14 connected to cycling. Study author Todd S. Cutler, MD, an assistant professor of medicine at Weill Cornell Medicine in New York City, says all 14 patients had similar stories.

"These were people who had either never

# "IF YOU PUSH YOUR BODY TO FAILURE AND KEEP GOING, YOU ARE AT RISK. LISTEN TO YOUR BODY. IT KNOWS BEST."

ment staining the urine) or less urination.

Many things can cause rhabdo, including trauma, drug use, statins, severe dehydration, and extreme temperatures. But the rise in exercise-induced rhabdo is getting more attention. "It can happen with any intense exercise if it involves repetitive motion of a muscle and new movement," says Maureen Brogan, MD, an associate professor of medicine at New York Medical College in Valhalla, New York.

ceps and gluteus maximus muscles at an intense rate—that first time, you may be at risk of getting rhabdo."

Brogan says people who stop cycling for some time and then go back at the same rate are at risk, too. "[Cycling] is great exercise if you are conditioned for it," she says. "But you burn 600 to 900 calories in one class. You wouldn't go out and run six to nine miles on your first day of running. If you did that, you wouldn't be able to walk either."

done this before, or it had been a long time since they had done this, and they would usually make comments like, 'I'm in pretty good shape' or 'I'm surprised this happened to me because I exercise.' The point being that these were fit people," Cutler says.

Military training is also connected to rhabdo cases. A 2012 study found it happening seven to eight times a year in a group of 10,000 military members. A 2010 study of military personnel in basic training found about 22 cases per 100,000 recruits each year.

Professional athletes have reported the condition, too. Professional snowboarder Amy Purdy took to Instagram in 2016 to tell fans she was hospitalized with the condition, which she called "crazy" and "scary." She says she got rhabdo after going to a CrossFit gym for the first time and doing intense pull-ups after not doing them for a few months.

"It wasn't until 72 hours later, I was back in my hometown with friends at a restaurant around 11 at night," she says. "I told them I worked out too hard a few days ago, and my arms wouldn't straighten all the way. I then took my jacket off and instantly noticed swelling around my elbows on both arms.

She remembered something similar happening to a friend and rushed to the hospital. "The doctors were convinced I didn't have it because my arms were only slightly swollen. They decided to test me anyway," Purdy says. "That whole experience was one of the hardest of my life."

She says people need to know that rhabdo can happen to anyone, no matter how often you work out or how in shape you are. "If you push your body to failure and keep going, you are at risk. Listen to your body. It knows best," Purdy says. "And if you find yourself going on days with overly stiff and sore muscles and you notice swelling, get to the hospital ASAP. It may not be rhabdo, but a simple blood test can tell."

Alexis Colvin, MD, an orthopedic surgeon at Mount Sinai Hospital in New York City and the chief medical officer for the U.S. Open Tennis Championships, says she's also heard of cases connected to marathons and ultramarathons. "There is definitely more awareness of it with the popularity of people looking for different ways of challenging themselves," she says.

In her article, Brogan describes three first-time cycling class-related cases that she felt reflected patients not seen widely in the medical literature—either because of their young age or the severity and quick development of their symptoms: a 20-year-old man who regularly exercised, a 33-year-old woman who got rhabdo after just 15 minutes on a cycling bike, and a 33-year-old woman whose case was so extreme, she needed hemodialysis (kidney dialysis).

All of these patients needed physical therapy.

"These three cases are all shocking. That is why I had to write about them. I want the public to know that you are at risk for going into kidney failure if you get rhabdo, and it is important to know how to prevent this from happening. Start [cycling] slowly," Brogan says.

#### WHAT TO DO **ABOUT RHABDO**

Experts say rhabdo shouldn't scare people away from exercise or have them thinking they are in danger if they hit the gym. The syndrome is rare and happens in small numbers. But doctors say you should be cautious about rigorous exercise when you are just starting out.

"If you are going to engage in a highintensity exercise regimen for the first time, you should start out at a level you can handle. If working with a trainer or exercise coach, they should have you do levels of increasing intensity over time—not hit people so hard the first time out that they end up overworking their muscles to a degree they aren't trained for. Those are the people who end up in trouble," Cutler says.

"It's about the trend in how you are feeling. In most typical recoveries, people tend to start to move in the right direction, but with rhabdo, that isn't the case. Untreated,

If you've recovered from rhabdo, Brogan says, there are no guidelines about how to go back to exercise. Many patients she speaks with have a fear of exercise after they recover. "I still speak to one patient who says her legs

Purdy says it took her a long time to heal.

In Weindruch's case, she was in the hospital for a week on pain medication and IV fluids. Doctors monitored her kidneys and vital signs, and it took several days for her pain to pass and her dark brown urine to return to its normal color.

Three years later, the now-33-year-old is still prone to dehydration but has returned

It's not uncommon to feel muscle sore-

ness after working out, so how do you know if you're dealing with rhabdo? Colvin says the pain seems extreme or out of proportion with the workout, and you would have it within a few days of the intense exercise.

it will most likely get worse," she says.

still just don't feel the same," Brogan says.

"Take it slow. I spent months in rehab before I could lift even the lightest of weights again. It's not something to take lightly," she says.

to exercising. She sticks to low-impact options like the elliptical, walking, or yoga.

"It's not that I'm traumatized. I just think it's a matter of listening to your body," Weindruch says. "In our society, you see a lot of really intense physical activity, which is awesome, but I don't think our bodies are meant to go from 0 to 60 unless you have done the proper training—at least not mine."

Search for the slideshow 12 Good Things That Can Go Bad at WebMD.com.

# GO SLOW

IF YOU ACCEPT A FREE PASS FOR AN INTENSE EXERCISE CLASS OR TRY ONE FOR THE FIRST TIME, MAUREEN BROGAN, MD, HAS TIPS FOR AVOIDING RHABDO.

- >> Stay WELL-HYDRATED before, during, and after the exercise.
- Don't allow your body to get too hot—OVERHEATING can help bring on rhabdo.
- Don't take your first class in a **HEATED EXERCISE** room.
- >> Tell the instructor you are new and ask for ADVICE when just starting out.

- >> Take breaks and work at a **SLOWER SPEED**
- » Avoid non-steroidal anti-inflammatory drugs like ibuprofen, because they can also help bring on **KIDNEY INJURY**
- » After trying an intense exercise for the first time. WAIT A FEW DAYS before working out again. Symptoms can take a few days to appear or worsen.



# BY SONYA COLLINS REVIEWED BY NEHA PATHAK, MD, WEBMD MEDICAL EDITOR "I REALIZED THAT MY BRAIN IS ADAPTIVE. I COULD KEEP SENDING IT THE MESSAGE THAT LIFE IS HORRIBLE AND I'M DYING,

TO HELP REDUCE PRESCRIPTIONS, ADDICTION, AND OVERDOSE DEATHS, RESEARCHERS STUDY **ALTERNATE WAYS PATIENTS CAN MANAGE THEIR PAIN** 

Cindi Scheib wanted to die.

A three-day weekend spent jumping and dancing on Labor Day 2014 had left her with a neck injury—specifically, the cervical spine—that was possibly a worsening of a mountain biking injury that she didn't treat earlier that year.

To make matters worse, once she decided to go ahead with surgery for the injury, her doctor performed it on the wrong part of her spine. That led to constant neck pain and other unusual sensations throughout her body.

She tried a few different prescription opioid painkillers, including fentanyl and hydromorphone, but they made her feel nauseous and foggy. Meanwhile, the strange sensationsincluding electric shocks down her spine; buzzing, vibrating, and burning feelings throughout her body; ringing in her ears; and sensitivity to normal noises—had gotten so bad, she says, that "I wanted to go to bed and not wake up tomorrow. This life was so bad, so horrible, that I couldn't imagine how I was going to live the rest of whatever life I had."

Today, the pain may be worse than it was in 2014, but Scheib, now 54 and a nurse in Harrisburg, Pennsylvania, is better. She says that's because she stepped off the well-trodden path of lifelong prescription painkillers and took the less traveled road of pain management—a combination of pharmaceutical

MILLION ESTIMATED NUMBER OF

ESTIMATED NUMBER OF AMERICANS WHO LIVE WITH CHRONIC PAIN

# **214 MILLION**

NUMBER OF **OPIOID PRESCRIPTIONS RETAIL PHARMACIES** FILLED IN 2016

>165,000

NUMBER OF PEOPLE WHO HAVE **DIED OF AN OPIOID OVERDOSE** SINCE 1999

INCREASE IN PRESCRIPTION OPIOID SALES SINCE 1999

**CINDI SCHEIB** 

NUMBER OF
PEOPLE WHO
STRUGGLE WITH
ADDICTION
AFTER TAKING A
PRESCRIPTION
OPIOID LONGTERM

and non-pharmaceutical treatments that gave Scheib her life back.

Like Scheib, an estimated 100 million Americans live with long-term pain. Since the 1990s, physicians' go-to treatment for constant pain has been prescription opioids, such as oxycodone or hydrocodone. Though the evidence that opioids work for long-term pain is lacking, Americans get more prescriptions for these drugs than people in any other country. The U.S. prescribing epidemic has led to a national crisis of opioid misuse, overdose, and death.

Now, as policymakers and health care providers work to stem the tide of addiction and abuse, patients and some prescribers worry that the changes will take pain medications out of the hands of people who truly need them. But alternatives do exist.

# CHALLENGES IN ONGOING RESEARCH

Obviously, painkilling medications that can't cause addiction, abuse, and overdose would make life easier for prescribers and could save the lives of patients. But the development of such drugs has been slow-going, in part because scientists don't completely know how chronic pain works. They believe the body has multiple pathways to chronic pain, and that means multiple targets for painkillers. But researchers don't have proven ways to identify which pathway causes pain in each person.

Drugmakers may have zeroed in on a target for both chronic back pain and osteoarthritis

pain. The FDA recently fast-tracked the drug tanezumab for approval. This non-opioid blocks the production of nerve growth factor, a substance that's needed for certain types of pain to occur. Several other antinerve-growth-factor drugs are in clinical trials.

Opioids, in contrast, address pain in a different way. They look like chemicals that the body produces naturally to regulate pleasure, pain, and emotions. So, when you take an opioid, the drug attaches to parts of nerve cells called opioid receptors, where they can block pain. But they also prompt pleasurable feelings that make people want more, and they slow breathing, which is why overdoses can kill.

A team of researchers at Wake Forest University and the University of Bath in the United Kingdom is exploring a new kind of opioid that could relieve pain without affecting breathing or raising the risk of abuse. The new drug—to date known by its chemical compound name BU08028—relieved pain in rhesus macaque monkeys. When they had the opportunity to take as much of the drug as they wanted, they didn't abuse it. When taken off the drug, they didn't show signs of painful withdrawal.

Although in early development, this type of monkey research is a key step on the path toward human clinical trials.

A second drug, also in early development in labs in the U.S. and Germany, could harness the pain-relieving effects of opioids while bypassing the negative effects. In experiments, the drug eased pain in mice. However, it's still a long way from human testing.

# **NOVEL APPROACHES**

The bottom line is that opioids should not be the first option doctors try in patients who have chronic pain. The CDC's latest guideline for opioid prescribing, released in 2016, notes that most proof of how well opioids work is based on short-term pain. The guideline directs doctors to first try nondrug treatments, such as physical therapy and talk therapy, as well as non-opioid treatments.

If those treatments aren't effective enough, before adding opioids, doctors should work with patients to set realistic goals for easing pain, with an emphasis on making the body work better rather than eliminating pain.

The U.S. Department of Health and Human Services (HHS) also released a "National Pain Strategy" in 2016 that emphasized many of the same points. The HHS document called for an approach to treatment that would include mental health, social, and work concerns of the patient and alternative therapies.

While there's no data yet on the effect that those 2016 measures have had, opioid prescribing peaked in 2010 and decreased every year after that through 2015. But rates are still too high, according to the CDC.

"We need to teach our patients that you may never be able to get rid of the pain completely," says Joji Suzuki, MD, a psychiatrist who specializes in substance abuse at Brigham and Women's Hospital in Boston.

"So how do you cope with it? How do you restore function?"

Exercise, physical therapy, and talk therapy do have proven benefits in the areas of coping and function, or making the body perform better. Health care providers ought to approach long-term pain with a combination of those treatments, says Ellen Edens, MD, a psychiatrist who treats veterans with chronic pain and long-term opioid use in the VA Connecticut Healthcare System.

"It's not clear [in clinical trials] that opiates actually improve function in the long run," she says. "In fact, there's some evidence that people on chronic opiates lose function over the long run." This is due in part to the side effects of these drugs,

which include nausea, vomiting, and constipation. While opiates might ease pain, the side effects can keep a person from getting on with his or her life. What's more, most people typically need to increase the dosage over time to get the same level of pain relief.

HHS has compiled a report for doctors to use when treating

# HOW YOUR BODY PROCESSES PAIN 1. OUCH! Special nerve endings can tell pain from other sensations. They send signals to the spinal cord. It's why you might yank your hand from the fire before you even think, "That's hot!" - - -2. MESSAGING: Your nerves, spine, and brain constantly message each other to determine how you feel pain. **BRAINSTEM** 3. KEY AREAS IN YOUR BRAIN: a) Your cerebral cortex thinks about the pain and decides what to do. b) Your limbic system responds with emotion: Pain Signal anger, fear, frustration, or even relief. ← - -Spinal Nerves c) Your brainstem controls automatic functions cord like breathing and heart rate that can change Nerve Endings in response to pain. Sources: Arthritis and Chronic Pain Research Institute. National Institute on Drug Abuse

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# HOW OPIOIDS BLOCK PAIN

# PRESCRIPTION OPIOIDS



They influence the release of chemicals from the "brain's internal reward system" that can calm your emotions and give you a sense of pleasure.



They slow down automatic functions, including breathing and heart rate, which can lower your pain.



They slow or reduce pain signals before they get to the brain, where you feel them.

# THEY CAN ALSO MAKE YOU:



Nauseated.



Tired & Sleepy.



Constipated.

# **TAKEN OVER TIME:**



Tolerance: Your body can get used to them, and you need more.







Misuse: You might take them in a way not prescribed by your doctor.



Withdrawal: You can get very sick if you suddenly stop taking them.



Addiction: You might become dependent.

**Sources:** National Institute on Drug Abuse. National Institute on Drug Abuse for Teachers. University of Utah Health Care.

long-term pain that summarizes the research behind many nondrug treatments and details how they work. "An opiate might bring your pain score down from an 8 to a 6.5, but if we add physical therapy, we can bring you down to a 6," Edens says. "Ibuprofen might bring you down to 5.75. Then we're going to get you therapy for your depression and your mood. Then acupuncture will bring you down to 5.25, and so on."

# **NEW WAYS OF THINKING**

This type of varied approach got Cindi Scheib her life back.

She learned about a pain rehab program in her area that put many methods into one treatment plan. There, two years after that fateful Labor Day weekend, she had physical therapy, talk therapy, swim therapy, meditation training, hypnosis, yoga, and biofeedback, a treatment that uses electronic monitoring of seemingly involuntary bodily functions (such as pain) to teach a person to control it.

Health insurance plans might soon include more nondrug ways to treat chronic pain. "I think we're seeing some shifts within the private insurance sector in how we are paying for pain care," says Christopher Jones, PharmD, a pharmacist and director of the National Mental Health and Substance Use Policy Laboratory at the Substance Abuse and Mental Health Services Administration in Rockville, Maryland. The

HHS is researching insurance coverage policies on the treatment of long-term pain. "That's an important step in trying to start the conversation on changing coverage policies," Jones adds.

Coverage is one barrier to a varied, nondrug way to treat chronic pain. Time is another. Some people won't want to invest the time in what might appear to be a slower approach. Still, it's worked for Scheib. "Everything started to gel," she says. "I realized that my brain is adaptive. I could keep sending it the message that life is horrible and I'm dying, or I could start sending it good messages. It's literally mind over matter."

Scheib hasn't gotten rid of her pain entirely. "Actually, it's probably worse now," she says, matter of factly. But her body works better now. In spades. Incredibly, she hikes, bikes, scuba dives, and even rappels down waterfalls. She attributes much of her improvement to changing her expectations.

Too often, says Suzuki, the substance abuse expert, patients have unrealistic beliefs about pain: "There's this automatic expectation that pain should be completely eliminated."

That's what's changed for Scheib: "Before, I had an expectation of a perfect life, but now, I'm reprogramming my brain. I have a realistic expectation to accept and adapt. The most powerful tool in my toolbox is my ability to be positive and hopeful."



DELICIOUS BITES

### MEALS MADE EASY

# Food



RECIPES BY Kathleen Zelman, MPH, RD, LD



### THE BEEF-LOVER'S OPTION

# **Asian Beef and Veggie Kebab**

The zingy Asian-inspired marinade is a prime pairing for lean beef (cuts like flank steak or London broil), but feel free to use another lean protein (such as pork tenderloin or lamb) instead.

 $\rightarrow$  THE MIX Beef, red pepper, button mushrooms, snow peas,



pineapple





MAKE IT Prepare marinade. Set aside 1/4 cup of marinade. Pour the rest into a zip-top bag with 1 pound beef, cubed. Marinate at least two hours. Preheat grill to high heat. Thread beef on skewers. On separate skewers, thread red pepper chunks, mushrooms, onion quarters, snow peas, and pineapple chunks. Reduce grill heat to medium-high. Grill skewers about 8 to 10 minutes, turning once halfway through grilling and brushing with extra marinade for the last 2 minutes of grilling. Serve over brown rice, sprinkled with sliced green onions and sesame seeds. SERVES 4

### PER SERVING (ABOUT 3 OZ COOKED MEAT, 3/3 CUP COOKED VEGETABLES, 1/2 CUP COOKED

RICE) | 458 calories, 30 g protein, 47 g carbohydrate, 17 g fat (5 g saturated fat), 46 mg cholesterol, 6 g fiber, 16 g sugar, 476 mg sodium. Calories from fat: 32%



# THE SALAD ALTERNATIVE

# **Chicken and Veggie Kebab Lettuce Wrap**

This recipe uses the same marinade from the first option, this time slathered on chicken breast and veggies. When the chicken and vegetables are done, serve them wrapped in lettuce leaves. We use butter lettuce here, but any soft, large-leaf lettuce will do.

### → THEMIX

Boneless chicken breast, cherry tomatoes, yellow pepper, red onion, zucchini, butter lettuce leaves









MAKEIT Prepare marinade. Set aside ¼ cup of the marinade. Pour the rest into a zip-top bag with 11/2 pounds chicken, cubed. Marinate at least two hours. Preheat grill to high heat. Thread chicken pieces onto skewers. Then thread tomatoes, yellow pepper pieces, quartered red onions, and thick zucchini slices on other skewers. Reduce grill heat to medium-high. Grill skewers about 8 to 10 minutes, turning once halfway through grilling. Serve chicken and vegetables in lettuce leaves, topped with remaining marinade sauce, chopped green onions, and sesame seeds. SERVES 4

### PER SERVING (ABOUT 5 OZ COOKED CHICKEN, 3/4 CUP COOKED VEGETABLES, 2 LETTUCE LEAVES)

| 311 calories, 42 g protein, 23 g carbohydrate, 6 g fat (1 g saturated fat), 97 mg cholesterol, 4 g fiber, 14 g sugar, 529 mg sodium. Calories from fat 15%



### THE VEGETARIAN DELIGHT

### Veggie Kebab

Using the same marinade, dress a colorful selection of veggies. Serve the roasted delights in a half pita and garnish. Traditionally seen as a side dish, these flavorful vegetables earn their place in the middle of the main dish.

### $\rightarrow$ THE MIX

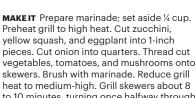
Zucchini or yellow squash, Japanese eggplant, onion, red and yellow grape tomatoes, mushroom caps, goat cheese











pieces. Cut onion into quarters. Thread cut vegetables, tomatoes, and mushrooms onto skewers. Brush with marinade. Reduce grill heat to medium-high. Grill skewers about 8 to 10 minutes, turning once halfway through grilling. Place vegetables in pita bread halves. Garnish with goat cheese crumbles, any remaining marinade sauce, sliced green onions, and sesame seeds. SERVES 4

### PER SERVING (11/2 CUPS COOKED VEGETABLES,

1SMALL PITA) | 281 calories, 13 g protein, 47 g carbohydrate, 8 g fat (2 g saturated fat), 6 mg cholesterol, 11 g fiber, 18 g sugar, 645 mg sodium. Calories from fat: 23%



REVIEWED BY Hansa Bhargava, MD WebMD Senior Medical Director



# BUILD A BETTER

# **Grain Bowl**

Fill your bowl with your favorite good-for-you whole grains, vegetables, and proteins, then lift up the flavor with a delicious sauce and fermented foods

FOR SEVERAL YEARS NOW, LOS ANGELES CHEF JESSICA KOSLOW'S SORREL PESTO BROWN RICE bowl has been a mainstay at her breakfast and lunch spot, Sqirl. In fact, she writes in her cookbook, *Everything I Want to Eat*, her restaurant likely would close if she took it off the menu. Why? In addition to its bold, balanced flavors, she says, "it's a whole meal in one place, and that's great." Here's how to build a bowl of your own.

### **MAKE IT**

- Choose any grain or mix and match. Brown rice and quinoa make excellent gluten-free options.
- Toss or top your grain with fermented foods like preserved lemon, kimchee, or sauerkraut for unique flavors that really pop.
- Make your grain's flavor the theme of your bowl. If you use kimchee, for example, think Korean food when plotting your other ingredients.
- Hide the grain beneath everything else. That way, its flavor surprises your guests.
- Bowls require balance. They should be seasoned with a bit of salt, brightened with acids like vinegar or lemon juice, and enhanced with healthy fats (think olive oil or avocado).
- Season as you go. Give each ingredient a boost of flavor from salt, olive oil, or tamari, for example—before it goes in the bowl.
- Use leftovers. Last night's steak, grilled chicken, or pulled pork belongs in your bowl.
- Top with your favorite fresh herbs and thinly sliced crunchy radishes.
- Or, once you place the grain in each bowl, step back and let your guests build their own meal out of the ingredients you've prepared.

# **Dress It Up**

TO FLAVOR YOUR SALAD WITHOUT CANCELING ITS NUTRITION BOOST, TRY THESE DRESSINGS, SELECTED BY REGISTERED DIETITIAN BONNIE TAUB-DIX.

AUTHOR OF READ IT BEFORE YOU EAT IT: TAKING YOU FROM LABEL TO TABLE.



### TRADER JOE'S TRADER GIOTTO'S BALSAMIC GLAZE

"Thick and rich, sharp, tangy, and slightly sweet, it has only 40 calories and no fat. Use it to dress a leafy salad with almonds and avocado."



### BRAD'S ORGANIC SESAME GINGER DRESSING

"Full of flavor yet lower in sodium and added sugar than most dressings, drizzle this over a salad of grilled chicken, mandarin orange slices, nuts, and arugula."



### KEN'S LITE BALSAMIC VINAIGRETTE

"This low-fat dressing pairs well with almost any simple salad—particularly with tomatoes and fresh mozzarella. It can also serve double duty as a marinade for asparagus."



### BRAGG ORGANIC APPLE CIDER VINAIGRETTE

"Only 15 calories, no fat, no sodium, and a very strong vinegar kick, its acidity contrasts deliciously with the fattiness of salmon in a seafood salad."

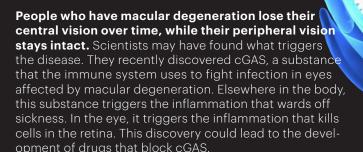


### NEWMAN'S OWN HONEY MUSTARD

"A little goes a long way with this creamy, lightly sweetened, and piquant dressing: It's an ideal match for a salad of sliced turkey, arugula, tomatoes, and cucumber."

# CUTTING EDGE

Macular degeneration, cataracts, and glaucoma are the leading causes of blindness in the U.S. Recent scientific advances could one day improve treatments for all.

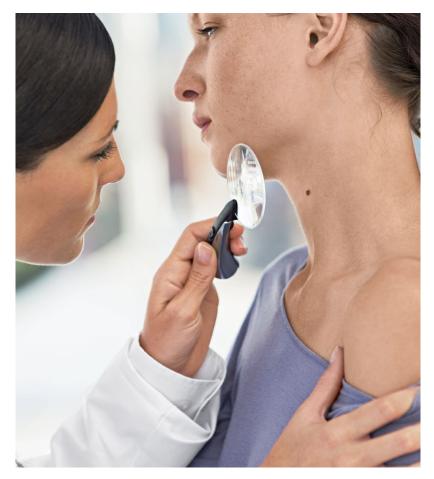


IN GLAUCOMA, fluid builds up in the eye, increasing the pressure, which eventually leads to vision loss. Glaucoma medications target this buildup, but they are far from perfect. Research into the cause of the poor drainage could lead to better treatments. A team identified a group of proteins that help grow the blood vessels in Schlemm's canal, the part of the eye that drains fluid. They

found that mice with low levels of this protein have all the signs of glaucoma and lack the structures in Schlemm's canal for proper fluid drainage. When the researchers injected an antibody to trigger protein growth in the mice's eyes, their Schlemm's canals repaired themselves.

Doctors can remove visionclouding cataracts with surgery. New technology might make all eye surgeries, including cataracts removal, safer. Eye surgery brings with it the risk of potentially blinding E. faecalis bacterial infections. Nano-engineers have developed nano-sponges that they can preload with bacterianeutralizing agents. The concept is still in the laboratory, but the idea is to inject the nano-sponges in the eye before surgery, where they will absorb any invading E. faecalis.

—SONYA COLLINS



WHO'S WHO

# **Dermatologist**

These skin professionals can specialize in many areas

THE SKIN IS THE LARGEST ORGAN IN THE BODY, PROVIDING A LAYER OF protective armor against germs, a way for the body to regulate temperature, and an alert mechanism for your nervous system to signal pressure and pain. Dermatologists diagnose and treat illnesses or ailments that affect the skin.

After completing medical school, dermatologists receive additional training, completing residencies and internship programs and logging up to 16,000 hours caring for patients before becoming board-certified to practice medicine.

# Beyond skin cancer

Dermatology is often associated with skin cancer. In fact, one study found that 46% of people surveyed believe dermatologists spend most of their time seeing melanoma patients. But these doctors diagnose and treat skin conditions and diseases ranging from acne and age spots to rosacea, psoriasis, and, yes, various types of skin cancer.

# **Common subspecialties**

Some dermatologists have subspecialties, focusing on specific areas of medicine that require additional training. Common subspecialties include dermatopathology, cosmetic dermatology, and dermatologic oncology.

Dermatopathologists work in labs, viewing tissue samples to diagnose skin disorders and research the causes of skin conditions. Dermatologic oncologists specialize in skin cancers. Cosmetic dermatologists focus on improving the skin's appearance as opposed to treating disease and might do surgeries to remove scars or inject products to smooth wrinkles.

# Too few dermatologists to meet demand

Recent research indicates there are 36 practicing dermatologists for every one million people in the U.S., and shortages—which contribute to long wait times for appointments—are expected to continue through 2025. Reasons include increased demands for cosmetic procedures as well as skin cancer rates that have been rising for the last 30 years.

BY THE NUMBERS

 $\frac{11}{363}$  Number of dermatologists in the U.S.

More than

S, OOO

Number of diseases dermatologists diagnose and treat.

Number of new melanomas that dermatologists will likely diagnose in 2018.

17.5 million

Number of surgical and minimally invasive plastic surgeries done in 2017—a 2% increase over the previous year.

REVIEWED BY  $Brunilda\ Nazario, MD$   $WebMD\ Lead\ Medical\ Director$ 

### HEALTH HIGHLIGHTS

# **Help Reduce Seizures**

More than 5 million American adults and children have epilepsy, a brain disorder that causes different types of seizures. Medical and surgical treatments can help reduce the likelihood of seizures—so can lifestyle changes and preparation.



# 10 Tips

REDUCE THE LIKELIHOOD AND IMPACT OF SEIZURES.

- 1. WRITE IT DOWN
  Track seizures, drug side
  effects, and how you feel
  in body and mind.
- 2. ENLIST OTHERS
  Educate those closest
  to you so they can help
  during a seizure.
- 3. FIND A SPECIALIST For the best care, seek out a doctor who really knows this condition.
- **4. PLAN FOR BABY**For a safe pregnancy, plan it and discuss it with your doctor.
- 5. STAY SAFE
  Pad sharp corners and edges in your house.
  Carpet your floors to help prevent falls.

- 6. GET TOGETHER
  Join a local support
  group to help you cope.
  Find one at
  www.epilepsy.com.
- 7. KNOW YOUR
  TRIGGERS
  Recognize the causes of
  your seizures and avoid
  them when possible.
- 8. STAY ACTIVE
  Moderate exercise may
  help control seizures, so
  add a workout to your
  daily routine.
- **9.** EAT RIGHT Some diets may reduce seizures. Ask your doctor about the right one for you.
- 10. KEEP CALM
  Reduce stress to reduce
  seizures. Try meditation or
  other relaxing activities.

# **EXPERT TIPS**

"More than of half of patients with epilepsy gain control of their seizures with antiepileptic medications. Remember to take them every day as prescribed. Use a pill box, an alarm, a family member, or a friend to help you remember to take your medications regularly."

### MACKENZIE C. CERVENKA, MD

associate professor of neurology and medical director, Epilepsy Monitoring Unit, Johns Hopkins Hospital "Everyone should be seizuresmart. Learn what to do when someone has a seizure. Get help if the person has trouble breathing or the seizure lasts for several minutes. Never put anything in the person's mouth. Instead, move the person onto his or her side."

### JOSEPH I. SIRVEN, MD

professor of neurology and chairman, department of neurology, Mayo Clinic "Get regular sleep. You have to think of sleep like a medicine. Just as you don't want to miss a dose of your medication, you don't want to miss a good night's sleep, because missed sleep may lead to a seizure."

## FRED LADO, MD, PhD

Northwell Health's regional director of epilepsy for Queens and Long Island, New York

# EXPERT Q&A

# **Drug Quality 101**

Curious about the quality of your medications?



PATIENTS AND CONSUMERS EXPECT SAFE AND EFFECTIVE DRUGS WITH every dose they take. **Michael Kopcha**, **PhD**, **RPh**, director of the Office of Pharmaceutical Quality at the FDA, answers some

common questions about drug quality.

- Q What does drug quality mean? корсна A quality product of any kind consistently meets the expectations of the user. Drugs are no different. They must be manufactured using standards that ensure every dose is safe, effective, and able to provide its intended benefit. The FDA assesses all drugs before approval to assure they meet established quality standards.
- Q How does drug quality impact me? корсна Quality is what ensures every dose of your drug is of the appropriate strength-not too weak and not too strong-and free of contamination and defects. It gives you confidence in the next dose you take. Also, problems with drug quality can create shortages, which may make your drug unavailable when you need it.
- Q Does the FDA have the same expectations for the quality of a drug made in the U.S. vs. abroad? Brandname vs. generic? KOPCHA Yes. The FDA has the same expectations for quality whether a drug is made in the U.S. or abroad and whether a drug is brand name or generic. You can have confidence knowing that all FDA-approved drugs have been held to consistent quality standards regardless of the source.
- Q What should I do if I suspect a problem with the quality of a drug? KOPCHA Even when manufacturers are very vigilant, sometimes quality issues arise after drug approval. You can report suspected quality issues with a drug directly to the FDA using the MedWatch system. Visit www.fda.gov/ medwatch to easily find the online reporting form for consumers and patients.

You can also discuss any concerns you have with your doctor or pharmacist.

### BY THE NUMBERS

Nearly lin3

Number of drug shortages caused by quality issues related to manufacturing.

Percentage annual reported drug shortages have dropped since 2011.

More than 1,300

Number of people who staff the FDA's Office of Pharmaceutical Quality, one of the largest offices at the FDA.

More than

Number of generic drugs approved by the FDA in 2017, an all-time high.

REVIEWED BY Neha Pathak, MD

WebMD Medical Editor



# DOCTOR Q&A

# Metastatic Breast Cancer 101

Learn more about the most advanced form of breast cancer

MORE THAN 150,000 WOMEN IN THE U.S. LIVE WITH METASTATIC BREAST cancer. **Daniel F. Hayes, MD**, clinical director of the Breast Oncology Program at the University of Michigan Comprehensive Cancer Center, explains how breast cancer spreads and what doctors can do to treat it.

# Q What is metastatic breast cancer?

**HAYES** Metastatic breast cancer is cancer that has spread from the breast to other parts of the body. Breast cancer and other solid tumors are like a dandelion plant. The plant and its roots are the primary cancer. Then the plant can go to seed and grow in other parts of the body. It's still breast cancer, but now it's growing in places like the bones, lung, and liver.

# ASK YOUR DOCTOR

# **Q** Where has the cancer spread?

Your doctor will use tests like an X-ray, bone scan, computed tomography (CT), and positron emission tomography (PET) to determine whether your cancer has spread to your bones, lungs, or other organs.

# Q What is my outlook?

Your outlook depends on the type of breast cancer you have, and where it has spread. It's hard to predict how you'll respond to treatment, but your doctor will do everything possible to prolong your survival and help you feel better.

# Q What is the goal of

treatment?

Metastatic breast cancer isn't curable, but treatments like radiation, chemotherapy, surgery, and hormonal therapy can shrink it and reduce or get rid of the cancer symptoms.

# • Where can I find support?

Being diagnosed with a latestage cancer can be overwhelming. Ask your oncologist to recommend a support group for metastatic breast cancer patients in your area.

# Q How does breast cancer spread?

HAYES Cancer cells spread through the blood or lymph system. In a small percentage of patients, the cancer has already spread when they're first diagnosed. More commonly, people go through breast cancer treatment for the original cancer in the breast and hopefully to prevent any seeds that have already escaped from growing in other places. Unfortunately, that doesn't always work, and at some point down the road some of these patients develop a metastasis.

### Q How is it treated?

**HAYES** We use many of the same treatments that are used for local breast cancers—including surgery, radiation, and chemotherapy. The goal is to pick a therapy that is most likely to work with the fewest side effects.

But instead of being one-size-fits-all, we can be much more precise in matching a treatment to a patient. Which treatment a person gets depends on the biology of their cancer—for example, whether it makes too much of a growth-promoting protein called HER2, or it grows in response to the hormone estrogen. Every breast cancer is tested for these variations, and we have medicines that specifically work against estrogen and HER2.

# Q Can metastatic breast cancer be cured?

HAYES Treatments can often make the tumors shrink and help people feel better, but we can almost never cure metastatic breast cancer. We're hoping some of the new therapies in development will change the outlook for this cancer, and do it with fewer side effects.

# Q What options do people have if their treatment doesn't work?

HAYES Ask your oncologist if you're eligible to participate in a clinical trial. Advancements happen because of good science suggesting a treatment might work, and then patients being willing to participate in clinical trials.

# ROBBY KLEIN/GETTY IMAGES

# Take 10

# Sam Heughan

Actor, 38, Scotland

# ٦

# Can you give readers a hint of what to expect on "Outlander" season 4?

Without giving away too many spoilers, Jamie and Claire have washed up on the shores of America, and it's a new world . . . . It's a wonderful experience for Jamie to find somewhere he wants to live and lay down roots. And we see them for the first time build a home and build the family structure they wanted. Until, of course, things get up in the air again.

# 2

# What have you enjoyed most about playing Jamie Fraser?

When you've been living with a character for so long, you really get the opportunity to feel comfortable in his skin. And you really begin to know the character. So when you come into each scenario, you have a very strong idea of how this character is going to react.



# This summer you star with Kate McKinnon and Mila Kunis in *The Spy* Who Dumped Me. How would you characterize the movie?

It's an action-comedy. The writing is very funny, and we've got a terrific duo with Mila and Kate. They are the only people you want to go on a road trip with around Europe while being chased by bad guys.



# What is My Peak Challenge?

My Peak Challenge is the charity fundraiser I started on social media. Over the last three years, we've expanded it into a community-based online workout and nutrition program. You can sign up, and each day you get a workout video that's totally scalable to your needs.



# "Challenge yourself, and nothing is unattainable."

# 5

# How does My Peak Challenge help the blood cancer charity Bloodwise?

Fifty percent of our profit goes to charity. For the past three years, Bloodwise has been our chosen charity. They are a fantastic charity that does a lot of leukemia and lymphoma research. And we've been really fortunate that we've raised over a million dollars for them. This year we've decided to support another charity, Marie Curie, which supports people with terminal illnesses in hospice or going through treatment.



# What does your typical workout look like?

I do gym-based conditioning. I love to get

outdoors a lot. I'm currently training for two marathons. I do some martial arts, which was really helpful for the movie for the fight sequences. Boxing, as well. I mix it up as much as possible.

# 7

# When it comes to your diet, do you have any bad habits?

I'm a Scotsman, and I do enjoy a whiskey now and then. That would probably be my first protocol on a rainy Sunday in Scotland. I love to eat all kinds of food. And that's the great joy about My Peak Challenge's nutrition plan. It really doesn't say anything is off-limits. It's about balancing that with something healthy. I'm more than happy to consume a whiskey, and maybe a slice of pizza or haggis.

# 8

# What is your personal health philosophy?

It's about challenging myself and reaching new horizons. I like to mix things up and not get too comfortable. So I guess my philosophy would be: Challenge yourself and nothing is unattainable.



# If you traveled back to the 18th century, what would you miss most about the present day?

Honestly, I don't think I would last that long. I probably would be dead in a couple of weeks. Those were really tough times, and people were very hardy then. I'd miss central heating. I'd miss electricity, hot water, a soft bed—all the nice luxuries.

# 10

# What is your best piece of health advice?

Sleeping and rest would be the best advice. Make sure you get seven to eight hours a day.

-STEPHANIE WATSON

# **WebMD**





# THAN RHEUMATOID ARTHRITIS

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# FOCUS ON

# Joint Damage 101

A LEADING RESEARCHER EXPLAINS HOW RA HURTS JOINTS AND WHY YOU SHOULD ACT TO PREVENT FURTHER DAMAGE

By Stephanie Watson

The signs of rheumatoid arthritis (RA)—swollen, stiff, and sore joints—are pretty obvious to anyone who lives with this disease. Much less obvious are the processes going on under the surface that make joints swell and ache.

Unlike osteoarthritis (OA), in which joint cartilage gradually wears away over years of use, RA is a disease of inflammation. "That inflammation leads to the production of factors that drive joint destruction," says Ellen Gravallese, MD, Myles J. McDonough Chair in Rheumatology at the University of Massachusetts Medical School.

Gravallese and her colleagues have been studying how inflammation destroys cartilage and bone in RA for the better part of two decades. What they've discovered is that a few separate processes are behind joint damage, pain, and deformity.

One process damages bones in the affected joints. Cells within the inflamed joints produce a substance called RANK ligand (RANKL), which increases the production of osteoclasts. Normally, osteoclasts break down bone as part of the natural repair process. Then, other cells called osteoblasts rebuild bone. When inflammation produces massive numbers of osteoclasts, they break down bone too rapidly to rebuild. "It's like putting fuel on a fire," Gravallese says.

A separate process damages cartilage, the rubbery connec-



tive tissue that cushions and protects bones at the joint. Inflammatory factors in the joint lining-like interleukin-1 (IL-1), interleukin-6 (IL-6), and tumor necrosis factor-alpha (TNF-alpha)trigger the production of destructive enzymes that break down cartilage. Inflammation also destroys the scaffolding of bone that supports the cartilage. "It's like you're building a house and you lose the scaffold you're trying to build upon. Therefore, the cartilage attached to that scaffold is going to be destroyed," Gravallese says.

Pain is often a sign that the inflammation isn't well controlled, she adds. The better you control inflammation, the less likely you'll be to progress to joint damage. That's why it's important to let your doctor know right away if you have ongoing joint pain.

Thanks to a new generation of drugs that block

inflammatory factors like IL-6 and TNF-alpha, people with RA no longer have to settle for a lifetime of pain and disability. "These drugs are very effective at controlling inflammation in rheumatoid arthritis," says Gravallese. "If inflammation is under good control, you can prevent the progression of bone destruction in the disease." Preventing inflammation also does a pretty good job of controlling RA pain, she adds.

As a result, far fewer people with RA have to undergo joint replacement surgery today than in years past. "That's because we're so good now at controlling inflammation, and we can prevent the joint damage that previously required surgery," Gravallese says.

Reviewed by Michael W. Smith. MD WebMD Chief Medical Director

# **ASK YOUR DOCTOR**

- 1. Will my RA get worse if I don't treat my pain? Joint pain in RA is often a sign of persistent inflammation. If you're in pain, see your rheumatologist, who can adjust your medication to better control inflammation.
- 2. What else can I do to protect my joints? Exercise is very important to keep your joints flexible. Swimming, walking, and tai chi are some of the best-and safest-exercises for people with RA.

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# HEALTH SMARTS

# **Loving Care**

CAREGIVERS ARE AN ESSENTIAL SUPPORT SYSTEM FOR PEOPLE WITH RHEUMATOID ARTHRITIS

By Stephanie Watson

When Andre Marcial married Chantelle, his childhood sweetheart, four years ago, he immediately assumed two new roles: husband and caregiver. Since Chantelle was diagnosed with rheumatoid arthritis (RA) nearly 20 years ago, her day-to-day life has been marked by pain, fatigue, and other disabling symptoms that often pop up unexpectedly.

"One thing about rheumatoid arthritis is that it's unpredictable," says Chantelle. "Some days my hands hurt. Some days my hips or knees hurt. It can be fatigue, which is sometimes extreme. My medication can also cause side effects. Waking up and just being able to go doesn't happen much anymore."

Once they wed, Andre took over, anticipating what Chantelle's needs and doing the things she can't manage, like running to the grocery store after work, reminding her to take her medicines, or driving her to doctor's appointments. Sometimes, that means going straight



from his overnight security job to an appointment. "It's tiring because by the time we get back it's usually late. I'm trying to head off to bed to get ready for the next day," he says.

More than 43 million people in the U.S. are caregivers to a spouse, parent, child, or other loved one with a chronic illness. The burden of caring for someone with RA has lifted somewhat in recent years, thanks to a new generation of disease-modifying

drugs that more effectively relieve symptoms like joint pain and stiffness. Yet even people with well-controlled RA need help-and emotional support.

"I guess the most important thing I do is try to stay positive and encourage her," Andre says. "I always ask, 'What's going on today?' I just try to be helpful and realize that she doesn't even know sometimes."

Though caregiving is a rewarding endeavor for those who do it, watching a person deal with a painful and debilitating disease can also be frustrating. "I wish I could help ease the pain more," Andre says.

One way he tries to help is by making sure Chantelle gets to all of her appointments so her doctor can address any issues she's having. Because she stays on top of her treatment, "my rheumatoid arthritis is pretty well controlled. I work with an amazing team of doctors, and my rheumatologist is wonderful," she says.

Andre's support is invaluable. "I would not be functioning if it weren't for him," she says. "To have somebody who's not only supportive but who anticipates what the next step will be is crucial."

If you're an RA caregiver and need support, you can find it from arthritis advocacy groups like Creaky-Joints (creakyjoints.org) and the Arthritis Foundation (arthritis.org).

> Reviewed by Neha Pathek, MD WebMD Medical Editor

# 4 TIPS

A good caregiver can make a big difference for someone with RA. Here are some ways to help, from Veena Ranganath, MD, **UCLA** Health rheumatologist and associate clinical professor of rheumatology at the David Geffen School of Medicine

### Be Understanding

RA flares are unpredictable. Understand that a person can have good days—and bad days—and adapt as needed.

# Go to Appointments

Doctors' appointments can sometimes be overwhelming, so go along to listen, note, and remember all of the doctor's recommendations.

### **Ask for More Options**

It can take up to three months to get relief from a new RA drug. If a person's current treatment isn't helping, ask his or her doctor about adding fasteracting drugs like corticosteroids or NSAIDs as a bridge until the drug starts working.

# **Get Vaccinated**

Doctors recommend that people with RA stay up to date on their vaccinations to prevent infections. Get vaccinated, too, and you'll protect your loved one even more.

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# BY THE NUMBERS

# Rheumatoid Arthritis

By Heather Hatfield

U.S. adults with rheumatoid arthritis

Estimated increased likelihood of depression if you have rheumatoid arthritis

**Portion of** the global population with

rheumatoid arthritis



Number of women vs. men

with rheumatoid arthritis

26%

Projected percentage of American adults with arthritis by 2040

Global percentage of rheumatoid arthritis patients younger than 65 eventually unable to work



ΤO

Percentage of patients whose drug treatment leads to lasting remission

U.S. adults with any type of arthritis who have severe joint pain

**\$39.2** billion

Annual U.S. cost of rheumatoid arthritis

Increased risk of rheumatoid arthritis

if you are obese



Increased chance of early death among women with rheumatoid arthritis

Reviewed by Michael W. Smith, MD WebMD Chief Medical Director

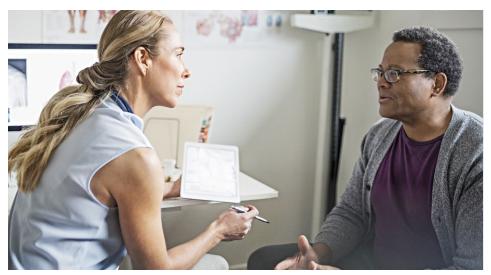
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# CHECKUP

# Your RA Visit

THESE SMART QUESTIONS WILL HELP KEEP YOUR HEALTH ON TRACK By Barbara Brody



Trust. Honesty. Openness. These qualities are key in any good relationship, and when you have moderate to severe rheumatoid arthritis (RA), that includes your relationship with your doctor.

To start, you should see a physician, usually a rheumatologist, every three months. "You want to continually assess disease activity and side effects of medication. We also do blood work to check inflammation markers and make sure that your kidney and liver function is OK," says Linda A. Russell, MD, a rheumatologist at the Hospital for Special Surgery in New York.

While testing is important, you also want to have an in-depth conversation with your doctor. These four questions will help guide you.

# Q Does pain mean I'm having a flare?

Possibly. "If you've already had significant damage to a joint, then it might still hurt even if you're in remission," says Russell. This problem is more likely if you developed RA before the introduction of biologic drugs (the first one hit the market in 1998). That said, you should always tell your doctor about any pain so he or she can check it out. Joints that are warm, tender, or swollen with fluid are tip-offs of inflammation that needs to be treated.

# Q I think I'm having a flare. What should I do? Speak up and alert your doctor. "We can increase

your dosage of medication, try changing medication, or give you a short course of oral prednisone [a steroid that fights inflammation]," says Russell. If only one joint is involved, then you might be able to get an injection of cortisone instead of taking oral steroids.

# Q What can I do, besides take medication, to improve my pain and mobility?

Being active is really important, though you may need to ease up a little during a flare. "Most people who participate in a regular exercise program feel better and

have less stiffness," says Russell. It's especially important to keep the muscles around bothersome joints strong. "If you have bad knees but really strong thigh muscles, that will make it easier to get around,' she says. Losing weight if you're overweight is also a good idea.

# Q I'm worried about catching an infection. What can I do?

You can take steps to keep from getting sick. Most people with moderate to severe RA take methotrexate along with a biologic drug that targets specific parts of the immune system. Biologics work really well to prevent joint damage, says Russell, but because they suppress the immune system, they also leave you vulnerable to infection. Your doctor can explain which vaccines to get and when. Avoiding sick people and practicing good hygiene is also important. If you're currently sick, your doctor might advise stopping your biologic drug for a few weeks.

Reviewed by Michael W. Smith, MD WebMD Chief Medical Director