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bottomline HEALTH

Actionable advice you can trust from top wellness experts

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THE POWER OF PETS

Human-animal interaction can ease anxiety, lower blood pressure, and even lengthen life.



Alan Beck, ScD
Purdue University

When a dog gazes at you with those big sad eyes, you're witnessing a form of evolution in action. Because of human selection, dogs—but not wolves—can move their eyebrows, creating those heart-melting puppy-dog eyes. It's a motion that appears to serve a singular purpose: communicating with humans.

On the surface, humans respond to puppy-dog eyes by handing over treats and affection, but more is happening that we cannot see: Our brains respond by releasing oxytocin—the love hormone. Oxytocin is associated with bonding between mothers and newborns, and with the heady days of new romance. It fosters feelings of love, trust, and contentment.

Health benefits

Beyond the brows, simply interacting with animals, from dogs and cats to fish and birds, is associated with reduced anxiety, depression, and loneliness. Human-animal interaction (HAI) can lead to physical health benefits as well.

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Carrie Ali
Editor

Dear *Bottom Line Health* reader,

If you're working on a thorny problem, sometimes the best thing you can do is walk away—literally. From philosophers to writers, artists to inventors, there is a rich history of walking as an intellectual tool.

In 335 BC, Aristotle's students were called peripatetic philosophers, or those "given to walking about." In 1782, Jean-Jacque Rousseau wrote, "I can only meditate when I am walking. When I stop, I cease to think; my mind only works with my legs." And in 2014, researchers at Stanford University reported that people are about 60 percent more creative when they are walking than when they are seated.

Walking has even found its way into the curricula of business schools and the operating guides of some of the largest organizations in the world. Ted Eytan, MD, medical director of the Kaiser Permanente Center for Total Health, Washington, D.C., is an advocate for increasing the use of walking meetings in the workplace. Walking improves executive function, he explains, as well as employee engagement.

"I walk chiefly to visit natural objects, but I sometimes go on foot to visit myself, wrote Alfred Barron in *Foot Notes, Or Walking as a Fine Art*. "It often happens when I am on an outward-bound excursion, that I also discover a good deal of my own thought. . . . So let a man take to his legs and soon his brain will begin to grow luminous and sparkle."

Whether you're looking to boost problem solving at work, increase creativity at home, or create an environment where your brain can glow and sparkle, take it to the streets, or the trails, or even, the Stanford researchers found, the treadmill. Move your legs and your creativity is sure to follow.

PURPOSE: To help our readers achieve and maintain health by providing the latest findings from the world's leading experts in both mainstream and natural/complementary medicine, and guidance through the increasingly complex and often hostile health-care system. *Bottom Line Health* is an independent publication that neither accepts outside advertising nor answers to any institution. **Our only allegiance is to you, our reader.**

Editor: Carrie Ali

Contributing Writers: Janet Bond Brill, PhD, RDN; Bill Gottlieb; Chris Iliades, MD; Charles Inlander

Art Director: Mary Francis McGavic

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B *Bottom Line Health* USPS 001-537 (ISSN 1092-0129) is published monthly for \$59.90/yr., \$6/issue by Belvoir Media Group, 535 Connecticut Avenue, Norwalk, CT 06854-1713. Periodicals postage paid at Norwalk, CT, and additional mailing offices. Canadian and foreign price \$66.90/yr. (US funds). Canadian GST#: 128044658. Robert Englander, Chairman and CEO; Timothy H. Cole, Chief Content Officer; Philip L. Penny, Chief Operating Officer; Greg King, Chief Marketing Officer; Ron Goldberg, Chief Financial Officer; Tom Canfield, Chief Circulation Officer.

Postmaster: Send address changes to *Bottom Line Health*, P.O. Box 8535, Big Sandy, TX 75755-8535.

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Heard by Our Editors

You can sanitize an N95 mask with a multicooker,

we heard from Thanh "Helen" Nguyen, PhD. The dry heat from a rice cooker or Instant Pot can fully decontaminate multiple N95 respirators in 50 minutes. As long as no water is added and a small towel covers the bottom of the cooker to keep any part of the respirator from coming into direct contact with the heating element, the respirators suffer no damage to their filtration or fit. Multiple masks can be stacked to fit inside the cooker at the same time.



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Thanh "Helen" Nguyen, PhD, associate professor, department of civil and environmental engineering, University of Illinois at Urbana-Champaign, Urbana, Ill.

Alpha lipoic acid lowers body fat and weight,

we heard from Gerd Bobe, PhD. Researchers reported that giving people 600 milligrams of this supplement each day for 24 weeks led to a clear loss in body weight and body fat, particularly in women and in the heaviest participants. When taken as a dietary supplement, lipoic acid stimulates glucose metabolism, antioxidant defenses, and anti-inflammatory responses.

Gerd Bobe, PhD, associate professor, animal & rangeland sciences, Oregon State University and Oregon Health & Science, Corvallis, Ore.

Adenosine injections may ease osteoarthritis,

we heard from Carmen Corciulo, PhD. Eight weekly injections of adenosine triphosphate into the joints of rodents with biological damage similar to human osteoarthritis prompted regrowth of cartilage tissue. While there's a long way to go before human trials, this treatment could one day offer an alternative to joint replacement.

Carmen Corciulo, PhD, postdoctoral fellow at NYU Langone Health, New York.

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Taming tinnitus

Try these simple steps to quiet the noise in your head.



By Chris Iliades, MD



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The word *tinnitus* means the tinkling of bells, but for the 50 million Americans who experience it, tinnitus is far less pleasant.

The low- or high-pitched roar or ringing that comes from inside your own head can be a maddening ailment that can interfere with daily activities and lead to high rates of depression and anxiety. Fortunately, you can do something about it.

What is this ringing?

For most people, tinnitus is not caused by a serious disease that needs to be treated: It is most often a symptom of a problem with your hearing system called sensorineural hearing loss. The cause is nerve damage from aging or noise exposure.

If you have tinnitus that bothers you, makes you anxious, keeps you awake at night, or lasts longer than six months, you need to talk to your primary care doctor, who can start by looking for treatable causes of tinnitus, such as wax near your eardrum or fluid in your middle ear.

Since tinnitus is usually associated with hearing loss, your doctor may send you to a hearing specialist called an audiologist for a detailed hearing test (audiogram). If your tinnitus is associated with sensorineural hearing loss, you may be diagnosed with primary tinnitus.

If your hearing test doesn't suggest sensorineural hearing loss, you may need to see an ear, nose, and

throat (ENT) specialist to see if you have secondary tinnitus, which may be caused by a treatable condition such as stiffening of the little bones inside your middle ear or arthritis of your jaw joint. People with secondary tinnitus may experience ringing in just one ear, a pulsating ring, dizziness, and jaw pain. If your hearing test or ENT exam suggests secondary tinnitus, your ENT doctor may order imaging studies of your hearing system.

Can tinnitus be treated?

Secondary tinnitus can often be treated by addressing the underlying cause. In some cases, a simple medication change can make a difference. Aspirin, acetaminophen, diuretics, and antibiotics are just some of the drugs that can cause the disorder.

Primary tinnitus has no cure, but there are management strategies to make it less bothersome. Many people get used to the sound and stop noticing it, but there is hope if you're not one of them.

- Using a hearing aid can improve your ability to hear regular sounds, which can drown out the tinnitus.
- Sound therapies may also help. Using a masking sound device, like a white noise machine, listening to pleasant sounds can cover the bothersome noise of tinnitus. Sound therapies may be especially helpful at night when tinnitus may seem loudest and interfere with sleep.

- Medications or talk therapy (psychotherapy) can help treat anxiety or depression that can either accentuate or result from tinnitus.
- Some people find that a healthy lifestyle that includes a healthy diet, exercise, and stress reduction improves symptoms.
- Don't waste your money on supplements and other over-the-counter medications that claim to treat tinnitus. Treatments like ginkgo biloba, melatonin, vitamins, zinc, and lipo-flavonoid have no evidence to support their use.
- Avoid loud noise exposure that can make tinnitus worse.

Future options

In the future, tinnitus sufferers may find relief with painless electromagnetic stimulation given through electrodes placed on the scalp. Early research shows that about 40 percent of people benefit from this therapy.

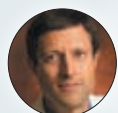
In deep brain electromagnetic stimulation, a more invasive option, the electrodes are placed in the brain. This treatment had been used to reduce tinnitus in patients with Parkinson's disease, but it has not yet been approved to treat tinnitus alone.

No one solution works for everyone, so you need to partner with your health-care providers to find what works best for you.

Chris Iliades, MD, is a retired ear, nose, throat, head, and neck surgeon. He is now a full-time medical writer and regular contributor to *Bottom Line Health*.

A vegan diet balances haywire hormones

A switch to plant-based eating can lower hormone-related cancer risk, menopause symptoms, even erectile dysfunction.



Neal Barnard, MD

Physicians Committee for Responsible Medicine
George Washington University School of Medicine



© Jan-Otto | Getty Images

Estrogen and testosterone do more than subject you to the vagaries of puberty. Throughout your life, hormones control everything from your metabolism to your moods, your fertility to your body fat. When they go haywire, they can also increase your risk of cancer.

The good news is that simply adjusting your diet can tune down the risk of everything from menopausal hot flashes to prostate cancer. Even erectile dysfunction may be a simple matter of what's on the menu.

Diet and breast cancer

Breast cancer strikes one in eight American women every year. For 5 to 10 percent of them, there is a genetic factor, but for many others, it is a hormone-related disease. Postmenopausal women with high levels of estradiol, a form of estrogen, have more than double the risk of developing breast cancer. Estradiol, particularly when it's not bound to a protein, can easily enter the nucleus of breast cells and damage the DNA inside, creating a cancer cell. It can then act as a fertilizer, stimulating the growth of tumors.

In the mid 20th century, researchers discovered a stunning trend:

Women in Japan rarely developed breast cancer. When they did, it was less aggressive than the cancer in American women. The difference? Diet. Japanese women at the time ate mostly rice and vegetables with very little meat or fish. But as more Western foods entered the Japanese diet in the 1970s, researchers saw a clear pattern: Women who ate meat- and cheese-laden meals showed an 83 percent higher risk of developing breast cancer than women who maintained a traditional diet.

Here's why: Fatty foods, like meat and cheese, increase estrogen levels. Fiber-rich fruits, vegetables, and grains do the opposite. The fiber binds to excess hormones and escorts them out of the body. Further, women who eat vegan diets have higher levels of a protein that inactivates hormones until they are needed, the sex hormone-binding globulin.

Diet and prostate cancer

The hormone and cancer link affects men too. Prostate cancer is common in the United States and Europe but rare in Asian countries. In this case, the culprit appears to be dairy.

Our bodies respond to dairy products by producing insulin-like

growth factor-1 (IGF-1). When we're young, we produce our own IGF-1 to help us grow. In adulthood, the body produces much less—we simply don't need it anymore. Dairy consumption, however, floods the body with IGF-1 long after we have any use for it. The Harvard Physicians' Health Study found that men who developed prostate cancer had 10 percent more IGF in their blood than those without cancer, suggesting that it plays a role in the disease.

Looking beyond IGF-1, a 2016 review reported that men who drink the most milk and milk products have a 43 percent higher risk of dying from prostate cancer than men who avoid dairy.

Erectile dysfunction

A plant-based diet can have more immediate benefits as well. Many men who make the switch experience an unexpected side effect: the end of erectile dysfunction (ED). While ED can be caused by prostate surgery or certain medications, like antidepressants, it is most often the result of narrowed arteries that reduce normal blood flow. Narrowed arteries aren't limited to just one part of the body. A man with ED likely has impaired blood flow to the

brain and heart as well, putting him at high risk of heart attack and stroke. Dumping dairy and meat can actually undo that arterial damage.

Menopause

Many women get a pleasant surprise as well: Plant-based eating is linked to the cessation of bothersome menopause symptoms. For women in the United States and other countries where a Western diet is prevalent, menopause often comes with hot flashes, night sweats, irritability, depression, and insomnia. It turns out that this is a uniquely Western experience: Women who eat traditional Asian diets with little to no meat and dairy report no such symptoms—unless they switch to a Western diet. Long before menopause begins, a vegan diet can even lessen menstrual cramps.

The game plan

Balancing sex hormones is just one example of the many proven benefits of a plant-based diet, so why isn't everyone doing it? Changing dietary patterns can be difficult, especially when it involves giving up something you enjoy. That's why I recommend that you start your journey by adding foods, not removing them.

For the next seven days, try as many new plant-based foods as you can to determine what you like. Don't give up meat and dairy yet, just enjoy a week of discovering new flavors.

Once you've identified foods that you enjoy, start making some simple swaps. Try soy milk in your cereal. For lunch, try a burrito stuffed with beans, veggies, and rice. Dinner might be pasta with a hearty marinara sauce. You can stick with your proven winners from week 1 or experiment with new recipes and flavors. Skip cooking oil—even vegetable oil—and try steaming, roasting, cooking with broths, or using an air fryer instead.

Once you fully eliminate animal foods, give it a three-week trial run. You don't have to give up skepticism. You don't have to commit long term. Just try it and see how you feel.

Ask the expert!

For years, I've taken lysine periodically to help prevent fever blisters, especially if I noted any tenderness in my lymph nodes in my neck. But recently, I've started feeling lymph node irritation almost daily. Do you have any advice?



Start with detective work with the help of a medical professional. The twinges of lymph node pain in your neck could be caused by a sinus infection, a recurrent allergy in the node drainage area, a tumor, an autoimmune condition, or an imbalance in the lipid coating of your nerves.

Once you rule out those conditions, take a look at what could be causing the virus that causes fever blisters (herpes simplex) to flare up. When a fever blister goes away, the virus never leaves your body. It lies dormant in your nerves until something activates it. That activation could come from something as simple as eating too many arginine-rich foods, such as nuts, grains, seeds, or chocolate. If you overindulge in any of these, take extra lysine before, during and after for a few days. One gram of lysine three times per day should work. Increase your dose if that is how much you take now. Since arginine promotes herpes reoccurrence but also supports the immune response, it is a good idea to take extra vitamins, herbs, and supplements that support the immune system. This might include vitamin A, D, and C, and astragalus.

Hormonal changes and decreased immune function can trigger the virus too. Even your posture can affect viral activity by putting excess pressure on the sensory nerve ganglia, where herpes resides. A physiatrist, chiropractor, or neurologist can test for such pressure and address it with exercise, posture correction, or manipulation of the cervical spine in the neck or in the lumbar region.

If you have recurring cold sores, you may benefit from a trial of valacyclovir. I don't recommend taking it all the time, just when you start to feel that tingle. I also recommend taking a daily vitamin B supplement and 1,000 micrograms of sublingual B₁₂ to support your nervous system. For some people, lemon balm as a tea or tincture can also be helpful.

Bottom Line Health interviewed Alan M. Dattner, MD, a board-certified dermatologist and pioneer in integrating nutrition, holistic medicine, and dermatology. <https://HolisticDermatology.com>

There is vegan junk food

Some plant-based foods are high in fat, and they should be reserved for only occasional consumption. If you're running errands and have to stop for fast food, you could grab an Impossible Whopper from Burger King, for example. While it's better than a beef burger, it's a far cry from healthy. Meat replacements are loaded with fat and salt to make them meat-like. Vegan cheeses are also an occasional treat and not a daily food group.

Know your why

To make it easier to make healthy food choices when temptation strikes, remember your reason for trying a

plant-based diet. Whatever you set out to do, you're likely to get even more benefits. A healthy plant-based diet is like a box of Cracker Jacks: You get it for the popcorn but always get an extra prize in the box. Will your prize be fewer mood swings? Lower cholesterol? Better sex? Try it for three weeks to find out.

Bottom Line Health interviewed Neal Barnard, MD, president of the Physicians Committee for Responsible Medicine, founder of the Barnard Medical Center, adjunct professor of medicine at the George Washington University School of Medicine, and a fellow of the American College of Cardiology. He has written more than 19 books on nutrition and health, including *Your Body in Balance*. Follow Dr. Barnard on Twitter @DrNealBarnard and Facebook @NealBarnardMD.

Take control of your medical bills

Two-thirds of Americans worry about unexpected medical bills. You don't have to be one of them.



Cynthia A. Fisher, MBA
PatientRightsAdvocate.org

If you're worried about financial ruin from big medical bills, you're not alone. Consider these startling statistics: In a survey of 1,000 Americans, 64 percent said they delayed or neglected seeking medical care in the past year because of concern about high medical bills.

In another survey, one-in-four people had trouble paying a recent medical bill. And—because of high deductibles, co-pays, co-insurance rates, and surprise out-of-network charges—that includes many people *with* health insurance.

Medical debt

All told, one in three Americans has debt from medical expenses. Often that debt is delinquent. About 20 percent of consumer credit reports include one or more medical collections, which means the consumer has one or more medical bills that are unpaid and overdue, with creditors in pursuit.

The pandemic isn't helping. So far, an estimated 5.4 million Americans have lost their health insurance since the virus struck in early 2020. Furthermore, a new study shows that the hospital treatment for COVID-19 patients without insurance (or receiving out-of-network care that isn't covered by insurance) typically ranges from \$35,000 to \$46,000, with some bills as high as \$93,000.

Even insured patients paying so-called “allowed amounts” are typically charged about \$24,000, which translates into plenty of fiscal stress if you have a plan with a high deductible. (The number of people with high-deductible health insurance plans has *doubled* in the last decade.)

The first emergency coronavirus bill passed by Congress was supposed to provide money for hospitals and health-care providers to forgive all COVID-19 related medical bills—but lack of insurance, loopholes in funding for those who are insured, and the expiration of benefits will leave many people with a high tab. And possibly poorer health as a result.

A recent article published in the *Journal of the American Medical Association*, one of the leading medical journals in the United States, stated that financial harm from medical care is every bit as dangerous to health and well-being as harmful side effects from drugs or complications from surgery. The authors asserted that patients can and should demand “transparency and honesty in pricing and in billing for medical services.”

What you can do

If you're dealing with a medical bill that seems confusing, wrong, or unfair, or if you're faced with a bill you can't pay, here are ways to deal effectively

with insurers, doctors, hospitals, and creditors to prevent or reduce your financial harm.

Know your coverage before you receive care. Before seeing any new doctor or specialist, check with your insurance company to make sure they are in your network. Call the insurance company to confirm: Online directories are not always updated and if a physician drops off the list, the extra cost is on you.

If your doctor or hospital orders tests and services, call your insurer's customer service line and ask to review the Summary of Benefits and Coverage (SBC) section of your policy to make sure they're covered. If the services aren't covered, call the customer service department and find out why. Your doctor may be able to appeal the decision or request a “peer-to-peer” consultation with the insurance company's medical director. Or your doctor may be able to order a different and generally comparable test or treatment that is covered.

Shop around for medical tests and procedures—and negotiate a fair price. Prices for the *exact same service* vary widely—if you can find out the price at all. For example, in a survey of 101 hospitals, prices for coronary artery bypass surgery ranged from \$44,000 to

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\$448,000, and only 53 of the 101 hospitals were willing to provide a price. Further, the varying prices reflected *no difference* in the quality of care, according to a quality score from the Society of Thoracic Surgeons.

Fortunately, there are ways to discover the fair prices of medical tests and procedures, which is particularly important if you don't have insurance, or you have a policy that is not compliant with the Affordable Care Act (Obamacare).

- Check what Medicare (www.medicare.gov/coverage) and commercial insurance companies (www.fairhealthconsumer.org) pay for the medical service you need.
- Explore price-checking websites, such as Healthcare Bluebook (www.healthcarebluebook.com) and Clear Health Costs (<https://clearhealthcosts.com>).
- For surgical procedures, look up the price at surgical centers that provide price transparency, such as The Surgery Center of Oklahoma (<https://surgerycenterok.com>), and Texas Free Market Surgery (<https://texasfreemarketsurgery.com>).

Once you know the *fair price*, you can negotiate with your doctor, hospital, or insurance company. First, ask for the cash price. If your doctor or hospital accepts the Medicare “allowable amount,” offer to pay it in cash *before* your visit or procedure. In many cases, the doctor or institution will offer significantly discounted rates for upfront, cash payments—sometimes as much as 40 percent lower than the insurance-negotiated rate.

Don't sign any paperwork in the emergency room. If you go to the emergency room and the hospital insists you sign a form for financial paperwork, refuse, or write “*Did Not Read*,” instead of your signature.

This is your legal right: The Emergency Medical Treatment and Active Labor Act (EMTALA) requires hospital emergency rooms to stabilize *anyone* needing emergency

care—and ensures public access to emergency services regardless of a patient's ability to pay.

Watch out for balance bills. Many consumers with health insurance are blindsided by balance bills—charges from out-of-network providers (anesthesiologists, radiologists, and pathologists) who work at an in-network hospital. Up to 57 percent of all medical bills now include unexpected, out-of-network charges. (You don't have to worry if you live in California or Florida—both states have outlawed balance billing.)

To help avoid this problem, make it clear to your doctor that you want to stay in-network and avoid all



out-of-network charges. You can also contact your insurance company and ask them to help you find nearby in-network labs and facilities. (Quest and LabCorp are on most plans.)

Ask for an itemized bill from your doctor or hospital, and dispute inaccuracies. It's your legal right to know what you're being charged for, but you'll likely need to ask for an itemized bill. Don't expect it to be accurate. About 80 percent of medical bills contain an error, such as duplicate or incorrect charges.

If there are any discrepancies—for example, you're being billed for a test you didn't get, a medication you didn't take, or an incorrect number

of days in the hospital—dispute them without delay. Some insurance companies have a statute of limitations for appeals, such as 60 days.

Don't pay for complications. You should *never* pay for treatment for complications that resulted from an adverse event, such as a hospital-acquired infection or surgery on the wrong part of the body. If you're pressured to pay, tell the hospital that the price for the treatment was not disclosed and that you would like an itemized listing of the charges in discovery (or litigation). Hospitals are so averse to revealing their prices in court—where they would be revealed to the general public—that they often forgive the entire bill.

If your insurance company refuses to pay, complain. If the service should be covered by your insurance according to the Summary of Benefits of Coverage in your policy, but the company is refusing to pay—don't give up. File an appeal. You can find ways to do that at <https://advocacy.consumerreports.org/research/insurance-complaint-tool/>.

If a debt collector calls, ask to see the contract. If a debt collector insists that you pay for an unfair bill, demand they provide you with the contractual agreement that obligates you to pay. If there's no written agreement, you have no legal obligation.

Let your voice be heard. Lack of fair and transparent pricing is the key problem plaguing our health-care system. Health care should be regulated by the competitive, free market, where you know the price *before* the purchase and can shop accordingly. My organization is devoted to advocating for patients, families, and caregivers to receive real-time, free access to prices before undergoing medical services.

Bottom Line Health interviewed Cynthia A. Fisher, MBA, founder and chairman of www.PatientRightsAdvocate.org, an advocacy organization that seeks to reduce the cost of health care through systemwide price transparency and the creation of a functional, competitive marketplace.



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Busting the cholesterol myth

Statins are not the best way to protect against heart disease.



Stephen T. Sinatra, MD
New England Heart Center

Every year, doctors in America write 240 million prescriptions for statins, such as simvastatin (Zocor) or atorvastatin (Lipitor), to lower “bad” LDL cholesterol and reduce the risk of heart disease.

But here’s a little-known fact: Although statins lower LDL, as advertised, for most people, that reduction doesn’t translate to a lower risk of heart disease.

Looking at the data

In new research published in the *British Medical Journal (BMJ Evidence-Based Medicine)*, three cardiologists analyzed the results of 35 studies on lowering LDL cholesterol with statins or other cholesterol medications. Nearly half of the studies failed to show that taking statins or other LDL-lowering medications reduced the risk of developing cardiovascular disease (CVD), and 75 percent showed no reduction in rates of death from heart disease.

What’s more, there was no consistent correlation between lowering LDL and cardiovascular protection.

In many of the studies, large drops in LDL levels produced no reduction in heart attacks, strokes, or deaths from CVD. In others, failure to significantly decrease LDL did not lead to more heart attacks, strokes, and deaths from CVD. In fact, in 14 of the 35 studies, a failure to decrease LDL *reduced* the risk for heart attacks and strokes. The researchers noted that, in the United States, cardiovascular deaths are increasing despite the rising use of statins and lower levels of cholesterol overall.

The only proven and reliable benefit of statins for CVD is for men under 75 with heart disease or a previous heart attack or stroke. Statins work in this case by thinning the blood and reducing inflammation, not by lowering LDL.

Questioning the prevailing theory

The study authors concluded that using statins and other drugs to reduce the risk of CVD is a failed strategy. They wrote: “Considering that dozens of randomly controlled trials of

LDL-cholesterol reduction have failed to demonstrate a consistent benefit, we should question the validity of this theory. In most fields of science, the existence of contradictory evidence usually leads to a paradigm shift or modification of the theory in question, but in this case, the contradictory evidence has been largely ignored, simply because it doesn’t fit the prevailing paradigm.”

How did the experts get it so wrong?

The main factor behind the persistence of the prevailing paradigm is profit—for the food industry and for drug companies. In the 1960s, the dietary causes of heart disease were still a matter of debate—with many scientists asserting that cholesterol-raising saturated fat found in meat, dairy, and eggs was the culprit, and others pointing to artery-damaging sugar. The debate was largely decided by a seemingly definitive 1967 study conducted by Harvard scientists and published in the prestigious *New England Journal of Medicine*. It reviewed the link between sugar and heart disease and concluded sugar did not play a role in heart disease, and that the only dietary factors of importance were fat and cholesterol.

But recent investigative research revealed that the study was secretly funded, designed, and directed by the Sugar Research Foundation—a trade group dedicated to the profitability of sugar.

LDL-lowering statins came on the market in the 1990s and were heavily promoted by drug companies as the answer to heart disease. However, the results of statin-supported research were consistently exaggerated by those same drug companies and the scientists they funded—as demonstrated by the new *BMJ* study.

The real risk

What is significantly more worrisome than high cholesterol is insulin resistance. This condition doesn’t account for 100 percent of heart disease, but it predicts CVD better than any other variable studied. Research by the late

Gerald Reaven, MD, of Stanford University, showed that insulin resistance increases the risk of heart disease 4,000 percent. Other researchers found that insulin resistance was the only significant predictor of a second heart attack, while LDL cholesterol had no predictive value.

A hormone manufactured by the pancreas, insulin ushers blood sugar (glucose) out of the bloodstream and into muscle cells, where it is used for energy. But in an estimated 50 percent of Americans, insulin doesn't work that way. That's because excessive stress and a daily diet rich in refined carbohydrates trigger the pancreas to pump out unnatural amounts of insulin—so much that the muscle cells begin to resist the hormone. Instead, the glucose is stored in fat cells. Those cells release a flood of inflammatory chemicals—and inflammation is one of the major causes of CVD. It makes arteries vulnerable to artery-clogging plaque. Insulin resistance also causes high blood pressure; increases triglycerides; lowers heart-protective HDL cholesterol; and increases small, dense LDL particles. This subtype of LDL is dangerous because—in contrast to large, fluffy LDL particles—it can burrow into arteries.

Are you insulin resistant?

Fortunately, there is a simple way to figure out if you're insulin resistant: Measure your waist. Men with waist sizes of 40 inches or more are almost certainly insulin resistant, as are women with waist sizes of 35 inches or more. However, about one in 10 people with insulin resistance are slim—their sugar-generated fat isn't right under their skin, but invisibly wrapped around their abdominal organs, a form of fat scientists call *visceral*.

Another giveaway is the ratio of your triglycerides divided by your HDL. An ideal ratio is 2 or under.

Addressing insulin resistance

The best way to eliminate insulin resistance is by changing your diet.

• **Sugar is the biggest threat** to your heart. Cut out soda, processed cereals,

pasta, bread, cakes, candies, pastries, and doughnuts.

• **Avoid trans fats**, a highly inflammatory form of fat that has been removed from much of the food supply, but may still be found in non-dairy creamers, margarine, ramen noodles, energy bars, and fast food.

• **Don't eat processed meats**, such as salami, sausages, hot dogs, luncheon meats, and bacon. They contribute to inflammation and heart disease.

• **Cut back on omega-6 fats**, which are found in vegetable oils such as corn, canola, and soybean. They're also pro-inflammatory.

Eat this instead

Research shows the higher the average daily consumption of vegetables and fruits, the lower the chances of developing CVD.

• **Eat five to nine half-cup servings of vegetables and fruits each day.**

The most protective are green, leafy veggies, such as spinach and kale, and cruciferous veggies, such as cauliflower and broccoli. Berries and cherries are also loaded with anti-inflammatory compounds.

• **Wild Alaskan salmon, sardines, and anchovies** are loaded with anti-inflammatory omega-3 fatty acids and are low in mercury. Eat these at least twice a week.

• **Eat more nuts.** Five large studies have found a consistent 30 to 50 percent lower risk of heart disease or heart attacks linked to eating nuts several times a week.

• **Eat more beans.** One study found that one serving of beans daily lowered the risk of a heart attack by 38 percent. Eat a serving of beans or lentils at least four times a week.

• **Favor dark chocolate for dessert.** It's rich in flavanols, a heart-protecting antioxidant. Research has found that regular chocolate consumption reduces CVD by 37 percent. Look for a product with no less than 60 percent cocoa. Eat one or two squares four to six days a week.

• **Use only olive oil.** Dozens of studies show it's one of the healthiest fats for the heart.

• **Use more garlic.** It lowers blood pressure and thins the blood. In one study, people who used garlic powder regularly for four years had a 2.6 percent regression in arterial plaque—while people who used a placebo powder had a 15.6 percent increase.

Supplement superstars

I've used these two science-backed nutritional supplements (and many others) in my practice for decades—and they're superb for protecting and restoring the health of the heart.

Coenzyme Q10 (CoQ10) helps create cellular energy from nutritional fuel. And the heart—which beats more than 100,000 times a day—is dependent on the energy-generating power of CoQ10. It also helps protect against the side effects of energy-depleting statins. *Recommended dose:* At least 100 milligrams (mg), twice a day.

The mineral magnesium can help prevent and manage both insulin resistance and high blood pressure. It also helps stop the calcification that underlies clogged arteries. *Recommended dose:* 400 mg daily. (Magnesium supplementation is not recommended for anyone with kidney disease.)

Stress is hard on your heart

Chronic stress is a major instigator of inflammation and high blood pressure and weakens your heart. Use the relaxation response exercise every day for 10 to 20 minutes to decrease heart rate, lower blood pressure, slow breath, and relax the muscles. Sit quietly in a comfortable position with your eyes closed. Deeply relax all your muscles, beginning at your feet and progressing up to your face. Breathe through your nose. Become aware of your breathing. As you breathe out, say one word silently to yourself.

Bottom Line Health interviewed Stephen Sinatra, MD, an integrative cardiologist and the founder of the New England Heart Center in Manchester, Connecticut. Dr. Sinatra is the author of *The Great Cholesterol Myth and Reversing Heart Disease*. <http://www.heartmindinstitute.com> and <https://www.healthdirections.com/dr-stephen-sinatra>

The importance of sleep

There was a time when we thought sleep was a passive state of withdrawal. We now know that it is so much more.



Sudha Tallavajhula, MD

Neurological Sleep Medicine Center at TIRR Memorial Hermann;
McGovern Medical School at The University of Texas Health Science Center

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The evolution of humans has determined that we sleep about one-third of our lives away. For evolution to devote that much time to sleep, there must be some important benefits.

An early theory was that the night was a dangerous time for early humans, so it was better to shelter in place and become passive. We now know that sleep is an active process that affects every organ in the body.

Benefits for the body

While you sleep, your body is restoring and recuperating. Chemical messengers are being replaced and released. Growth hormone is being used for muscle growth and tissue repair. Damage to your heart and blood vessels may be healing. Hormones that control blood sugar and hunger are replaced. While all this activity is going on, your body is also conserving energy. Your metabolism drops by about 10 percent. Your temperature and need for calories decline.

Sleep also boosts your immunity. Not only does your immune system produce and release important proteins called cytokines when you're sleeping, but sleep also strengthens mucosal defenses to ward off cold and flu viruses. That's one of the reasons why a viral infection makes you sleepy: Your immune system needs to power up.

Studies show that animals deprived of sleep even for a few weeks will die.

Benefits for the brain

Sleep is important for the brain too. Attention, acquisition, consolidation, and recall are the building blocks of learning and memory. Acquisition refers to taking in new information or learning a new skill. It occurs while you are awake, but lack of sleep makes it harder to focus and learn new information. Consolidation refers to the reinforcement of new and previously learned material in the brain's networks. Research suggests that memories are embedded into your brain during sleep. How this happens remains one of the great mysteries of sleep research.

Toxic brain substances are removed during sleep. These include tau—a protein that forms tangles in the brains of people with Alzheimer's disease—and adenosine, an organic compound that is produced when brain cells are active and using energy over the day. As adenosine builds up at the end of the day, it makes you feel sleepy. (In fact, caffeine works by blocking the effect of adenosine.)

All the benefits of sleep depend on an internal, 24-hour clock called your circadian rhythm. Sleeping at the same time and for about the same amount of time each day is essential

for reinforcing this mechanism. Set by hours of daylight and darkness, the clock depends on a delicate balance of chemical messengers, like the nighttime hormone melatonin and the morning hormone cortisol.

Dangers of deprivation

Adults need seven to eight hours of sleep every night. The idea that some people can go with much less sleep is a myth. One of the common signs of sleep deprivation is dozing off while watching TV or sitting at work. The most obvious danger of sleep deprivation is falling asleep while driving.

When you are sleep deprived, all of the chemical messengers, hormones, and brain chemicals you need for sleep benefits go offline and fall out of balance. Short-term sleep deprivation can cause poor concentration and judgment. It may slow your reflexes and even cause constipation, but there is usually no long-term damage and we can bounce back. Long-term, or chronic sleep deprivation, however, is as damaging as chronic stress. Conditions such as insomnia or sleep apnea increase your risk for heart disease, kidney disease, high blood pressure, diabetes, stroke, obesity, and depression. When you are tired, you may eat to stay awake. You may crave the jolt of a high-sugar meal. Over time, this can lead to obesity, high blood sugar,

and even diabetes. A lack of sleep can cause depression—and be the result of it. A classic symptom of depression is waking up very early in the morning and not being able to go back to sleep.

How to protect your sleep

The key to getting a good night's rest is following good habits, called sleep hygiene. You should aspire to maintain a schedule for sleeping, waking, eating, exercising, and winding down before bedtime.

- Go to sleep and wake up at the same time every day.
- Use the hour before bedtime to wind down by reading, relaxing, or taking a bath or shower.
- Avoid bright lights, meals, exercise, alcohol, or nicotine before bedtime.
- Avoid caffeine after 3 p.m.
- Get daytime exercise and spend time outdoors in sunlight.
- Keep your bedroom dark, quiet, and cool.

If you are having trouble falling asleep, good sleep hygiene should help. If it doesn't, you may have a sleep disorder that needs additional treatment. Common sleep disorders include insomnia, sleep apnea, restless legs syndrome, and narcolepsy. Prostate disease and bladder incontinence are common causes of disrupted sleep, as are some medications.

Don't ignore daytime sleepiness. Just like hunger is a warning sign that you need calories for energy, sleepiness is a warning that you need sleep for the health of your mind and body. Keep a sleep diary to keep track of how you sleep and how tired you are during the day. Note if you wake up in the middle of the night or early in the morning and can't get back to sleep. Share your diary and concerns with your doctor to determine what additional steps you may need to take. In some cases, you may need to seek the expertise of a dedicated sleep specialist.

Bottom Line Health interviewed **Sudha Tallavajhula, MD**, medical director of the Neurological Sleep Medicine Center at TIRR Memorial Hermann, and associate professor of neurology at the McGovern Medical School at The University of Texas Health Science Center in Houston.



[SMARTER EATING]

Janet Bond Brill, PhD, RDN, FAND

Lentils, the longevity legume

Lentils have been part of the culinary culture of the Mediterranean throughout the ages. These seeds may be petite, but they are nutritional *giants*, loaded with heart-healthy fiber, antioxidants, plant protein, vitamins, minerals, and iron.

Eating legumes, such as lentils, might even be the dietary secret to longevity. Studies show that people who eat a diet rich in legumes are less likely to suffer from chronic disease and tend to live longer. Legumes increase your body's disease-fighting antioxidant level, and they reduce inflammation. They help control cholesterol and blood sugar levels. They help prevent and treat metabolic syndrome, which is a cluster of metabolic disturbances that increase risk of diabetes and heart disease.

Legumes' complex carbohydrates provide long-lasting energy, and they are loaded with plant protein without any of the artery-clogging excess baggage that goes along with animal protein (saturated fat and cholesterol). They are rich in disease-fighting fiber and phytochemicals.

Embrace these small life-saving plant proteins and start today to take a giant leap in living a longer, healthier life.



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Dr. Janet's Warm and Comforting Lentil Soup

In this Mediterranean-inspired, hearty soup, flavorful herbs and spices elevate the humble lentil to new heights.

Ingredients

1½ Tbsp extra-virgin olive oil	¼ cup tomato paste
1½ large onions, diced (about 2 cups)	1 Tbsp curry powder
5 carrots, peeled and diced (about 2 cups)	1 Tbsp sweet paprika
4 garlic cloves, peeled and chopped	6 cups water
2 cups brown lentils, rinsed and picked over	1 cup fresh parsley, chopped
One 15-ounce can diced tomatoes	1 cup fresh cilantro, chopped
	1 extra large vegetarian bouillon cube
	½ tsp hot sauce

1. In a large soup pot, heat the olive oil over medium heat.
2. Add onions, carrots, and garlic and cook until softened and golden, about 10 minutes.
3. Stir in the lentils, tomatoes, tomato paste, curry powder, paprika, and water. Cook for 30 minutes, until lentils are soft, stirring frequently.
4. Add the parsley, cilantro, bouillon cube, and hot sauce, stirring to dissolve the bouillon cube.

Serving suggestion: serve hot with a loaf of crusty whole-grain bread.

Makes 9 servings.

Nutrition information per 1 cup serving: *Calories: 212, Fat: 3 g, Saturated Fat: < 1g, Cholesterol: 0 mg, Sodium: 150 mg, Carbohydrate: 35 g, Dietary Fiber: 16 g, Sugars: 7 g, Protein: 14 g*

Janet Bond Brill, PhD, RDN, FAND, is a registered dietitian nutritionist, a fellow of the Academy of Nutrition and Dietetics, and a nationally recognized nutrition, health and fitness expert who specializes in cardiovascular disease prevention. Based in Hellertown, Pa., Dr. Brill is author of *Blood Pressure DOWN*, *Cholesterol DOWN*, and *Prevent a Second Heart Attack*. <http://DrJanet.com>.

In October 2019, two studies published in the medical journal *Circulation: Cardiovascular Quality Outcomes* suggested that dog ownership significantly reduces the risk of death. In the first, compared with non-owners, dog owners experienced a 65 percent reduced risk of mortality after heart attack, a 31 percent lower risk of death from cardiovascular issues, and a 24 percent lower risk of death from any cause.

A second study in the same issue reported that, among people who live alone, those with dogs have a 33 percent better chance of surviving a heart attack and a 27 percent greater chance of surviving a stroke.

Pet owners have lower cardiovascular risk factors overall, including lower plasma cholesterol, triglyceride values, and blood pressure, as well as a blunted blood pressure response to stress. Babies and toddlers who are exposed to animals have a lower risk of developing allergies and asthma.

Much of the evidence is still observational and anecdotal—so don't expect your doctor to prescribe a puppy for hypertension just yet—but it certainly suggests that there are ample reasons to interact with animals.

Pet ownership

Of all pets, dogs have been studied the most. They can read our moods and change their own behavior in response. They serve as someone to talk to and can ward off loneliness. Cats too provide companionship and love, but they're not included in studies nearly as often. Part of the reason is that while dog owners represent a variety of people of different ages and health levels, cat owners are often women who are in poorer health and who have less social support, two factors that can skew study results.

While simply having a pet provides mental and physical benefits, HAI researchers are now looking more closely at how different interactions influence the benefits. For example,

Planning for a pet

- **Choose wisely.** Are you willing and able to take care of a high-energy dog's needs for exercise? Or would a calmer lap dog fit better with your lifestyle? Would a dog be left alone for long stretches of time? Perhaps a cat would be a better match.
- **Accept lifelong responsibility.** Puppies and kittens grow old. Animals get sick and need care. As a pet owner, you need to keep caring for a pet even when things are rough. Veterinary care can be expensive, so it's a good idea to look into pet health insurance to help cover unexpected costs.
- **Adopt a senior.** If an older family member is looking to adopt a pet, consider an older shelter pet. An older dog can provide all of the love with less need for exuberant exercise. An older cat is less likely to outlive a beloved owner.
- **Plan for unexpected events.** Who will care for your pet if you are incapacitated? What will you do if you need to evacuate for an emergency? Work the details out long before you need them.
- **Foster.** If you're interested in spending time with animals in your home but are concerned about the cost of veterinary care or being able to care for the animal over a long period of time, consider fostering a pet. Many animal rescue organizations place animals in people's homes for a short time while looking for a permanent home. The rescue provides veterinary care while the foster parent provides love, comfort, and socialization.



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one dog owner could gain more physical benefits by taking walks more often than someone whose dog roams in the backyard. Feeding the fish in a tank or birds in the wild provides different benefits than simply observing them.

Animals in therapy

Health-care providers have learned that animals can enhance the therapeutic effects of their care in what's called animal-assisted therapy. A psychologist may include a dog in therapy sessions to help patients feel more comfortable, while a physical therapist may use horses to help people with physical disabilities improve strength and balance.

Animals can be trained to help people with medical conditions live more independently. Consider seeing-eye dogs, emotional support animals for people with post-traumatic stress disorder, and animals that can sense epileptic seizures.

Animal-assisted activities are less formal. There is evidence that when a dog visits or lives on a memory care unit of a long-term facility, residents with Alzheimer's disease display more social behaviors, such as smiling,

laughing, and touching. When nursing homes have aquariums, residents with Alzheimer's disease have better appetites and fewer disruptive behaviors. Watching fish can focus people's attention and reduce stress, in nursing homes, doctors' offices, and our own living rooms.

Exposure without ownership

Just as it's not always possible to have an animal in a long-term care facility, not all people can have pets. Fortunately, research suggests that the benefits of human-animal interaction aren't limited to animals that reside in our homes. Many of the same benefits can be gained by visiting zoos, feeding birds, and observing wildlife in nature. In fact, many of the benefits of animal interaction are also seen when people simply spend more time in nature. From our physiology to our psyches, humans benefit from interacting with the natural world.

Bottom Line Health interviewed Alan Beck, ScD, who is the director of the Center of Human-Animal Bond at Purdue University. He is the author of *Between Pets and People: The Importance of Animal Companionship*.

Raising the barre

This dance-inspired workout builds strength and balance.



Kristen Gasnick, PT, DPT
Excel Orthopedic Physical Therapy



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Don't let the dance origin of barre exercise scare you off. This popular workout focuses on simple movements that people of any ability can do to build strength, increase flexibility, improve balance, and optimize posture and core stability.

Barre is low impact, so it puts less pressure on the body's joints. It employs a combination of body-weight movements and light weights for resistance training as well as high repetitions of very small movements called isometric exercises.

Barre exercises incorporate movement in all three body planes: frontal, sagittal, and transverse. The frontal plane divides the body into front and back. The sagittal plane divides it into left and right, and the transverse plane divides it into top and bottom halves. Multiplanar movement engages muscles and joints through their full ranges and helps to maintain optimal mobility.

What a workout looks like

A barre workout should incorporate both upper and lower body movements as well as exercises that target balance and core strength. If you take a class, you'll use a ballet barre for balance. At home, you can use a sturdy chair.

Here are four core exercises to try:

Backward lunge. Stand upright and take a large step back with one foot. Lower your body until the opposite thigh is parallel with the floor. Keep your front knee over your front ankle.

Return to a full standing position and switch sides. Do three sets of 10 repetitions. When you are in the lowered position, try adding it a set of pulses where you move up an inch up and down an inch 10 times.

This movement targets the gluteus muscles unilaterally, ensuring that both sides of the body are being worked equally, and improves balance when transitioning between starting and ending positions.

Lateral leg lifts. Lift your leg to the side and slowly raise it to hip height or as far as is comfortable, and lower it back down. Do three sets of 10 repetitions. You can also add in pulses when your leg is lifted.

This movement targets the gluteus medius, a hip muscle that is key for providing stability to the pelvis and maintaining balance.

Arm sweeps. Sweep your arms out to the side while rotating your palms toward the front of the room. You can do this exercise with or without hand weights. The lifting motion targets the shoulder muscles (deltoids), while rotating the palms forward encourages external rotation and activation of the rotator cuff musculature that stabilizes the shoulder. Bring the arms all the way back down and complete three sets of 15 repetitions. A set of pulses can be added at the top of the movement.

Seated core. Sit on the ground with your knees bent and your feet flat in front of you. Lean back so that your torso is at about a 45-degree angle.

Holding this position for five to 30 seconds without using your hands to touch the ground or hold onto your legs for support will get the core muscles firing. When holding this position becomes easy, increase the challenge by adding dynamic arm movements, such as alternating arm lifts, or by rotating the arms and trunk from side to side.

Challenges

While anyone can benefit from barre exercises, people with poor balance need to be careful. Dynamic movements such as lunges and single-leg exercises that alternate from one leg to the other can be challenging if performed without a barre or chair. Many instructors, whether in a studio or through an online video, provide modifications for different fitness levels.

Barre exercise does not offer cardiovascular benefits, so it should be part of a broader program. A fitness regimen should include both strength training and cardiovascular exercise to keep muscles, joints, and the heart and lungs functioning optimally. Walking is a simple and effective cardiovascular exercise that helps keep the heart healthy and is low impact on the body. Adults should aim for 30 to 60 minutes of walking at least three to five times a week in addition to some form of strengthening workout, such as barre, for a comprehensive exercise routine.

Bottom Line Health interviewed Kristen Gasnick, PT, a doctor of physical therapy at Excel Orthopedic Physical Therapy, Livingston, N.J.

Coping with eye floaters

Here's why you see those bothersome spots and what to do about it.



Margaret Liu, MD
Pacific Vision Foundation



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Eye floaters, the spots and strings that drift across your visual field, can range from an annoyance to a downright problem if they interfere with the ability to drive or read. They are more common in people who are over age 50 and those who are nearsighted.

Let's take a look at what is happening in the eye when these appear. Most of the eye is filled with vitreous, a gel-like substance that is about 99 percent water and 1 percent solid materials that include collagen. As we age, bits of collagen can cluster into masses that cast shadows on the retina, causing most floaters.

A large, ring-like floater, called a Weiss ring, appears when the condensed vitreous gel separates from the retina at the optic nerve.

The risks

While floaters are most often a harmless result of aging, they can sometimes be a sign of something more serious, such as a sight-threatening retinal tear or detachment, inflammation in the back of the eye, or bleeding in the eye from diabetes, hypertension, blocked blood vessels, or injury.

If you experience a sudden onset or increase in the number of floaters, flashes of light, or darkness in your peripheral vision, make an appointment with an eye doctor as soon as possible. Even if you don't have signs of

a serious complication, it's a good idea to have an eye checkup whenever floaters appear. Once potentially serious conditions are ruled out, it's perfectly safe to leave floaters alone. Over time, many people no longer notice them.

Coping strategies

Not everyone adapts, however, and floaters can be maddening for some people. Here are some tips to help manage the annoyance:

- **Distract yourself.** If you are sitting idle, you are more prone to focus on the floaters. Distract yourself with an enjoyable activity, like riding a bike or going out with friends.
- **Wear brown, polarized sunglasses.** They can make the floaters less obvious, particularly in bright light.
- **Go dark.** Use dark mode and reduce the brightness on your electronic devices to make the floaters less visible.

Maybe it's migraine

Deborah I. Friedman, MD, MPH
University of Texas Southwestern Medical Center

About one-quarter of migraine sufferers have visual symptoms that can look like spots, sparkles, squiggles, zig zags, or flashes. These are not the same thing as eye floaters, and they don't even originate from the eye: They come from the brain. They can precede migraine pain, occur along with it, or even occur with no headache pain.

It can be hard to tell if what you're seeing is coming from the eye or brain, but one trick is to close one eye at a time. If closing one eye makes no difference in what you're seeing, it suggests that the spots are coming from your brain. If you see something different in each eye, however, it's likely an eye issue. It is possible to have migraine symptoms from one eye only, but it is rare.

Further, when you close both eyes, you can still see migraine aura symptoms, but not floaters. Migraine-related visual symptoms are short-lived. They last for about five to 60 minutes, most often for 30 minutes or less.

Other migraine visual symptoms include fragmented vision (like looking through cracked glass), inability to see the right or left side of the world, tunnel vision, and complete vision loss.

Bottom Line Health interviewed Deborah I. Friedman, MD, MPH, the director of the Headache and Facial Pain Program, University of Texas Southwestern Medical Center, Dallas.



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• **Consider interior design.** White walls and bright lights accentuate floaters. If you can't repaint light walls, use art to create visual distraction.

• **Meditation** can help reduce your stress levels and allow you to gain control over your emotional response to floaters.

• **Change your diet.** Some people report that cutting out sugar and fatty foods can reduce the appearance of smaller floaters.

• **Rest your eyes.** Get enough sleep and take regular breaks from computer screens.

Treatment

For people who can't tolerate floaters or are debilitated by them, there are treatment options, but they're not to be taken lightly. Vitrectomy, a surgery to remove the vitreous, has risks including infection, retinal detachment, or bleeding.

Laser treatment (vitrectolysis) is a less invasive option. An ophthalmologist focuses laser energy onto the clusters that are causing the shadows and administers a burst of energy for a tiny fraction of a second about 150 to 300 times. This energy pulverizes some of the floaters into a gas that completely vaporizes them and breaks apart others into smaller pieces that are less bothersome.

The effectiveness of laser therapy varies. Studies show that some patients have complete resolution, some only partial, and some report worse symptoms. The risks of vitrectolysis include retinal or lens damage due to the laser hitting these structures, inflammation, high eye pressure, and retinal tear or detachment. Because the treatment options are risky, eye doctors consider them only for very severe cases.

Many people have the hardest time with floaters during the first year after they appear. Often with time, the floaters will naturally settle down and become less noticeable as the brain learns to adapt.

Bottom Line Health interviewed **Margaret Liu, MD**, medical director of the Pacific Vision Surgery Center, Pacific Vision Foundation, San Francisco Eye Institute.



[YOUR ADVOCATE]

Charles B. Inlander

Manage your medical stress

Four years ago, I had major surgery to remove a brain tumor. Fortunately, the tumor was benign, but in the months that followed my surgery, I started suffering from mild depression and heightened anxiety. My neurosurgeon had not warned me of these potential after-effects before the surgery, but later told me that my reaction was not unusual. The trauma of both the diagnosis and the surgery itself could easily have caused those mental health issues.

I now know that depression and anxiety after major surgery are not only common, but also well studied. It even has a name, post-surgical traumatic stress syndrome (PSTSS). Symptoms include loss of appetite, anxiety, fear of recurrence, and fatigue. Quite often, the symptoms do not appear until weeks or months after the surgery. Surgery isn't the only medical issue that can create depression and anxiety. A frightening diagnosis such as breast or prostate cancer, artery blockage, or a debilitating condition such as Parkinson's disease can trigger a similar response.

Psychologists have already identified what they have labeled COVID-19 syndrome. It presents with most of the same symptoms as PSTSS but is not limited to individuals who have been diagnosed with COVID-19. In fact, studies show that while only 2 percent of the study group participants were infected, 28 percent reported clinically significant anxiety and 22 percent reported depression. In other words, the fear of the virus is enough to cause mental health issues.

Since most of my friends are in high-risk COVID-19 categories, by either their age or some underlying medical conditions, I hear their fear and worry when we talk. Most are afraid to go out, except for essentials. They have canceled medical appointments and worry about their children and grandchildren, many of whom they haven't seen for months. They see danger around every corner and worry that every ache and sniffle they experience is the onset of the disease. If you're experiencing similar feelings, here are some tips I have found to help relieve the stress.

Turn off the news. All of the pandemic bad news can be overwhelming. Try to limit your news scanning to just a few minutes each day. If something is important, you'll hear about it.

Talk to friends. Being isolated increases your stress and anxiety. While my friends and family cannot be in close contact, we do speak on the phone or use computer programs like Zoom to communicate. I have two Zoom calls a week with a group of my old grammar school friends and with a group of friends who go with me to baseball spring-training games every year. And we don't talk about the pandemic.

Seek professional help. My primary care physician put me on a medication and referred me to a psychologist when I started suffering my post-surgical issues. They both helped tremendously. Most insurance, including Medicare and Medicare Advantage plans, will pay for such help and referrals. Reach out to your doctor for help.

Charles B. Inlander is a consumer advocate and health-care consultant based in Fogelsville, Pa. He was the founding president of the nonprofit People's Medical Society, a consumer-advocacy organization credited with key improvements in the quality of U.S. health care, and is author or coauthor of more than 20 consumer-health books. Please send comments and suggestions for future columns to BottomLineHealth@Belvoir.com.



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Health Discoveries

■ **Rice can increase cardiovascular risk.** Most rice contains inorganic arsenic, a poisonous substance that has cumulative health effects. As a result, high rice consumption may increase the risk of cardiovascular disease and death. For lower arsenic content, go with basmati rice grown in California, India, or Pakistan. Lower it further by rinsing thoroughly and cooking each cup in six cups of water then draining.

■ **Traffic noise linked to obesity.** Long-term exposure to road traffic noise is associated with an increase in body mass index and waist circumference. Researchers found a 2 percent increase in obesity prevalence for every 10 decibels of added noise.

■ **Opioid use can cause deafness.** Investigators looked at records from the New Jersey Poison Control Center and found 41 people who had full or partial hearing loss or tinnitus after excessive opioid exposure. The inner ear is highly susceptible to injury, they noted, and opioid receptors in the ears make them vulnerable to this side effect.

■ **Mask up in the restroom.** Physicists studying fluid dynamics discovered that flushing a public urinal releases a large spread of aerosol particles that can contain viruses and bacteria. More than 57 percent of those particles travel away from the urinal—and toward other people.

■ **Trick yourself into a better mood.** Forcing a smile stimulates the amygdala, the emotional center of the brain that releases neurotransmitters to encourage an emotionally positive state. Even if you're faking it, the muscle movements alone can boost your mood.

University of Manchester; University of Oxford, *The Journal of Medical Toxicology*; American Institute of Physics; University of South Australia

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Is this normal?

I eat healthfully all morning and early afternoon, but at 3 p.m., I lose my self-control and overeat all of the wrong foods. How do I stop doing that?



Nicole M. Avena, PhD
Mount Sinai School of Medicine, New York,
and Princeton University, New Jersey



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There are a few possibilities for why you are having trouble maintaining your self-control when it comes to food throughout the day.

Firstly, and most simply, you may not be eating enough early in the day. Not nourishing your body properly can lead to a higher tendency to binge on unhealthy foods as time wears on.

This issue can be psychological—feeling like you are deprived of the things you love to eat—or it can be physiological—you are not feeding your body properly when you eat “healthfully,” which leads to deficiencies and cravings.

The total number of calories each person needs depends on age, sex, height, weight, and level of physical activity. On average, a man who is 5 feet 10 inches tall and weighs 154 pounds needs about 2,000 to 3,000

calories per day, while a woman who is 5 feet 4 inches tall and weighs 126 pounds needs 1,600 to 2,400 calories per day.

Another reason why you might have trouble maintaining self-control throughout the day is that you are not holding yourself accountable for the foods you consume. It is easy to mindlessly munch on junk food when we hit that mid-afternoon slump, so try keeping track of what you eat all day.

Learning to eat mindfully can be as simple as using a fitness app or establishing a certain ritual at mealtimes that snaps you out of your thoughts and brings you back to the present.

Nicole M. Avena, PhD, is an assistant professor of neuroscience, Mount Sinai School of Medicine, New York, and a visiting professor of health psychology, Princeton University, Princeton, N.J.

Do you have a health issue that's got you—and perhaps even your doctor—stumped?
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