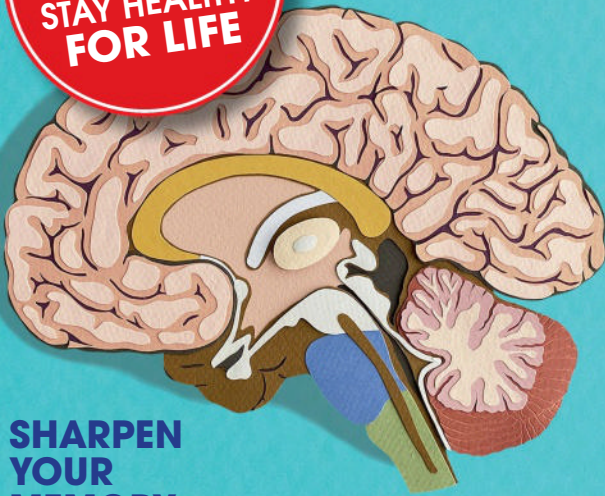


Prevention

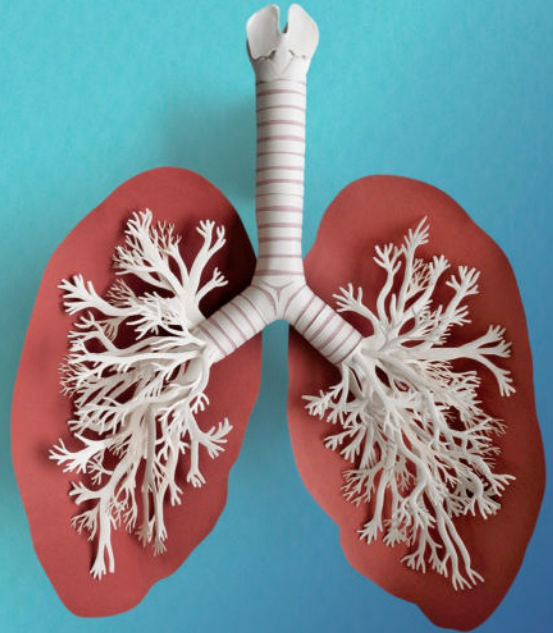
THE GUIDE TO AGING SLOWER

YOUR BODY'S *COMPLETE* OWNER'S MANUAL

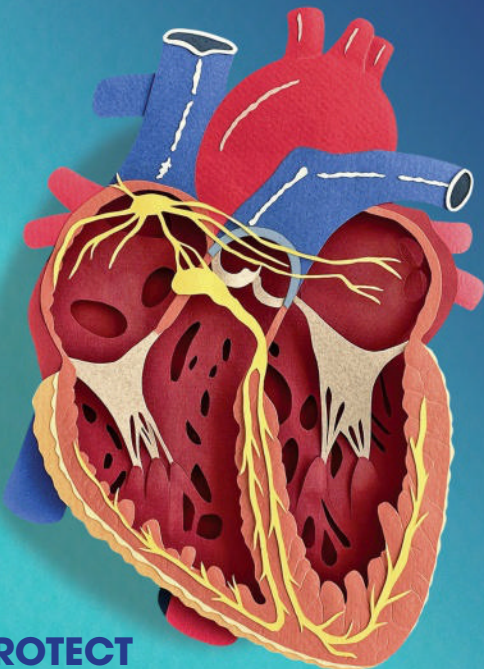
200+
WAYS TO
STAY HEALTHY
FOR LIFE



**SHARPEN
YOUR
MEMORY**



**BREATHE
EASIER**



**PROTECT
YOUR HEART**



**BUILD
YOUR
BONES**

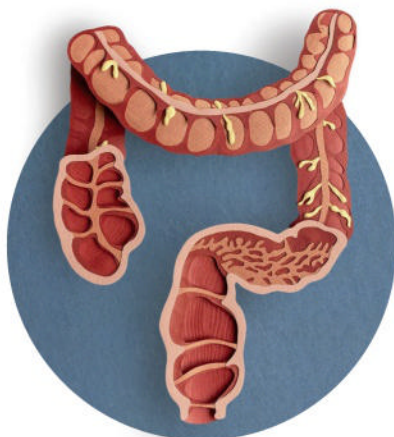
HEARST
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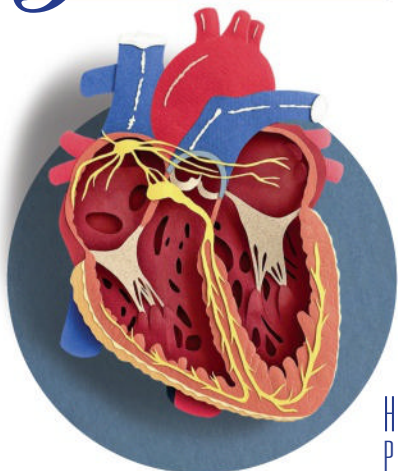
THE GUIDE TO
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YOUR BODY'S *COMPLETE* OWNER'S MANUAL

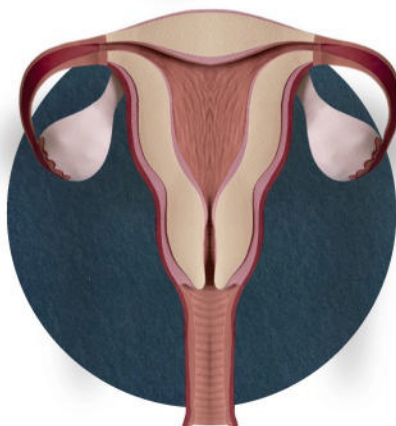
MEET *your*



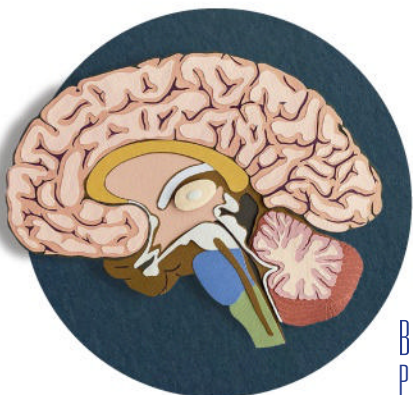
DIGESTIVE
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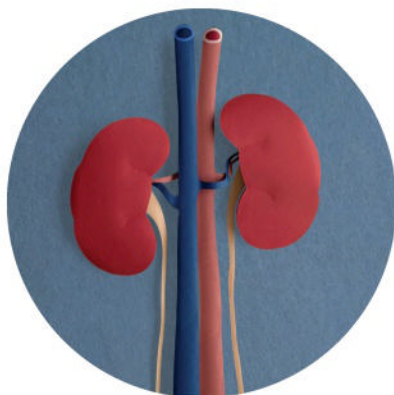
HEART
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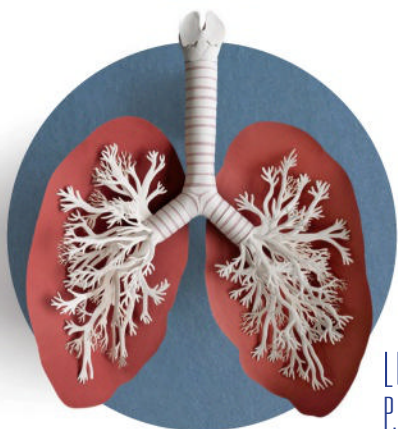
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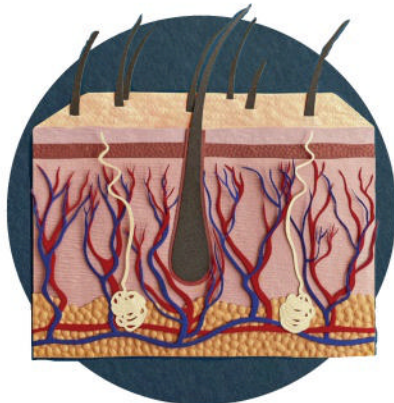
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LIVER &
KIDNEYS
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LUNGS
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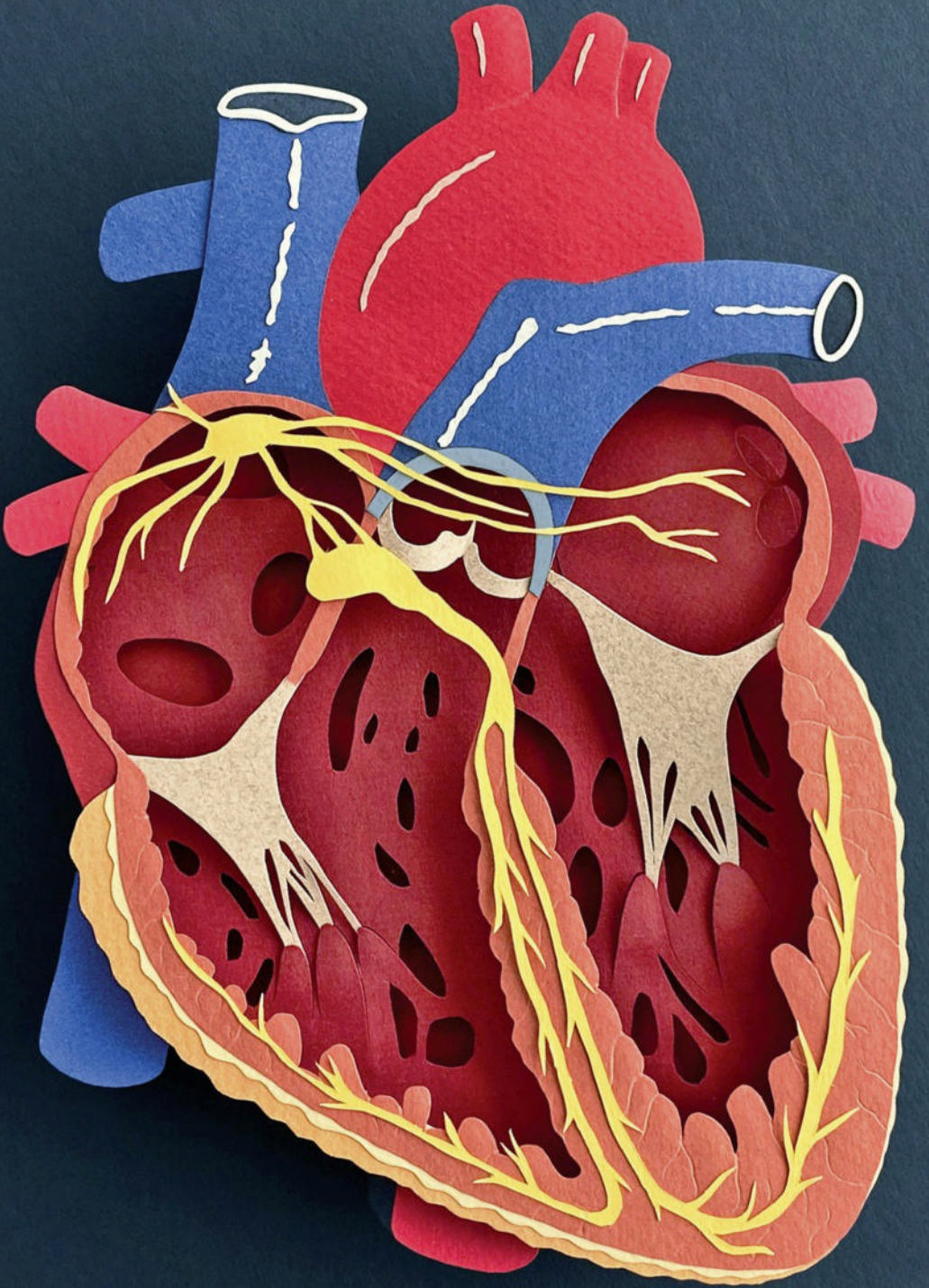


SKIN
P. 86

SKELETON

P. 40





MEET

your

HEART

***y*OUR HEART IS A HOLLOW MUSCULAR ORGAN THAT EXPANDS AND CONTRACTS TO MOVE BLOOD THROUGH THE ARTERIES AND VEINS.**

And it handles *a lot* in a day. It purrs during a hug, picks up its pace on a power walk, and keeps a steady beat when you're working and sleeping. But it can be hard to visualize your body's critical engine doing all of that. And that's a shame, says Nieca Goldberg, M.D., medical director of Atria New York. "If people could look in the mirror and see inside their arteries, my job would be a lot easier," she says. And because we can't, heart disease is the number one killer of women. But knowledge is power, so here's what you can do to make it stronger, healthier, and happier tomorrow, and always.

Protect Your Ticker

Heart disease is the cause of death for one in three women every year. Here are three simple ways to protect your most beloved organ.

DE-STRESS YOUR DAY

Not every little zing of tension will tank your heart health, but chronic stress can lead to overeating, skipping exercise, heavy drinking, and depression—all of which are bad news. Stress hormones, including cortisol, flood your bloodstream and constrict your arteries, driving pressure up. As blood rushes through, substances in it scrape pockmarks into artery walls, giving unhealthy LDL cholesterol niches to hide in. Stress hormones also make blood more apt to clot, which can lead to heart attacks. And especially

in women, stress can trigger spasms in tinier arteries, harming the heart. But taking steps to reduce tension lowered the risk of heart attack 48% in one study. Of course, “you can’t totally avoid stress,” says Suzanne Steinbaum, D.O., CEO and founder of Heart-Tech Health in New York. “So I tell my patients they need tools to stimulate the calming side of their nervous system.” (See “Simple Ways to Relax” on p. 8 to help you shift out of panic mode to help center yourself when you need it.)

CHOOSE THE RIGHT FATS

Unsaturated fats (polyunsaturated and monounsaturated) are heart-friendly. Good fats have been found to knock down lower unhealthy cholesterol levels and help lower blood pressure. Research goes back and forth over whether polyunsaturated fats (oils from fish are

in this category) or monounsaturated fats (avocados, many nuts, and seeds) are better for your heart. But the fact is, many oils contain both, so there’s no need to make yourself crazy splitting hairs about the ratio of polys to monos in a snack. Keep saturated ones like those in cheese and butter to about 5% of your daily fat total. Nuts and seeds are the ultimate good-fat snack: Four servings a week can cut heart disease risk by 22%.

MOVE A LITTLE

We know streaming television has a powerful allure, but don’t plant yourself on the couch all night. When you sit for hours and hours, muscle cells burn far less blood sugar and fat, which leads to increases in weight and blood pressure. Research suggests that years of sitting for at least four hours a day could double the risk for fatal heart disease.

Help your heart bounce back: One study found that just an hour of exercise a day could erase some of sitting’s health risks. And little breaks every hour can help reduce inflammation and keep you trim, says Micah Zuhl, Ph.D., an associate professor of exercise science at Central Michigan University. Try making some sit-less rules. Fill your water bottle just halfway so you’ll make more trips for refills. Or stand up every time you text someone.



DID YOU KNOW?

Anger harms your heart. When you blow a fuse, your adrenal gland ramps up production of cortisol and adrenaline, putting strain on it.



SIMPLE WAYS TO RELAX

Decompressing your mind and body helps make your heart sing. Here's how.

Spend three minutes noticing everything.

Use all five senses to pay attention to what's happening around you. This stops you from ruminating on the past or worrying about the future.

Think of five people who make you happy.

A Cornell University study showed that people had healthier responses on a stress test when they thought about a favorite person.

Breathe it out.

Deep breathing can alter nerve traffic between the brain and heart, easing stress, says C. Noel Bairey Merz, M.D., director of the Barbra Streisand Women's Heart Center at Cedars-Sinai Heart Institute.

Repeat the self-love.

Positive mantras are an effective way to chill out. Your phrase could be as simple as saying, *I am worthy*. In one Harvard study, people who repeated a phrase before a tension-inducing task had more relaxed vessels than those who didn't use a calming mantra.





FIT IN A WORKOUT

Your body responds to aerobic exercise the way a dog reacts when he sees the leash: yes, please! Every workout serves up at least five major heart benefits:

1 YOUR ARTERIES RELAX.

As you begin to exercise, blood pressure rises to feed more oxygen to your muscles. But then an amazing thing happens. Your tiniest arteries get less rigid and expand between heartbeats so more blood and oxygen can get through. That's why the stress of exercise is good for your cardiovascular system—unlike mental stress, which tightens up the same arteries. For hours afterward, arteries stay relaxed, helping control blood pressure, says Zuhl.

2 YOUR HEART MUSCLE GETS BUFF.

As for all types of muscles, the stronger you make them, the more efficiently they work. It's as if you've traded your V-6 engine for a V-8.

3 HDL GOES UP.

HDL is the healthy type of cholesterol, and exercise is a great way to make this number rise, Zuhl says, which also helps clear out the "lousy" LDL cholesterol that you don't want.

4 BELLY FAT MELTS.

That solves more problems than buttoning your pants. Having a waist measuring 35 inches or more could double your risk for a fatal heart attack, but exercise takes aim at belly fat. Shedding even 5% to 10% of your weight (8 to 17 pounds if you weigh 170) could help.

5 YOU'RE LESS ON EDGE.

Physical activity is like a natural pharmacy. It boosts levels of feel-good brain chemicals and may reduce stress-related cortisol.



BY THE NUMBERS

9-11

WEIGHT IN OUNCES, which is just a little heavier than a large apple

100,000

HEARTBEATS EACH DAY, or about 3 billion times over the course of your life

5

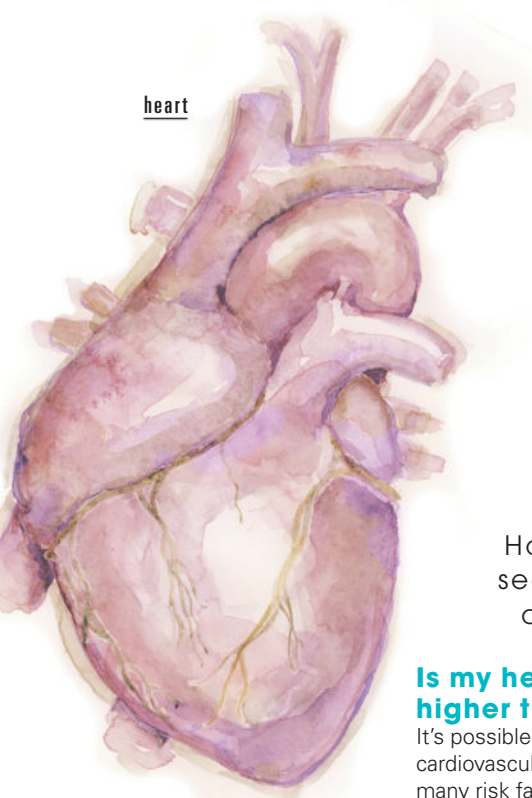
NUMBER OF QUARTS OF BLOOD THAT ARE PUMPED AROUND YOUR SYSTEM EVERY MINUTE.

In a year, it could fill three Olympic-size pools.

6.6

MILLIONS OF WOMEN in the U.S. who are living with coronary heart disease

heart



Ask the Cardiologist

Harvard Medical School cardiologist Haider J. Warraich, M.D., treats patients, sees and studies disparities in heart care, and is the author of *State of the Heart*.

Is my heart disease risk higher than I think?

It's possible. Your likelihood of having cardiovascular issues can vary, and many risk factors can be modified with lifestyle changes, like eating more produce, cutting processed foods, moving more, and taking any medications you're prescribed. However, one's race and ethnicity are also risk factors for heart disease. Black Americans have a 20% greater chance of dying of heart disease than non-Hispanic whites, a 50% greater chance of stroke, and a higher risk of a heart attack or heart failure than other racial or ethnic groups. And research has found that Black heart-attack patients were less likely to be treated with aggressive medical procedures or get standard medications after a heart attack than white patients were. While we used to think these differences were biological, a higher risk of heart disease is now mostly considered to be a result of social and environmental factors, such as lower income and less access to care. One good way to figure out your risk of heart disease and stroke is with the online calculator created with research from the American College of Cardiology and the American Heart Association. You can find it at cvriskcalculator.com.

Do my doctor and I connect?

A good doctor isn't just someone who will order tests and prescribe medications. Your doctor has to be someone you can trust, who makes you feel seen and heard, and with whom you feel comfortable making

decisions about your health. A recent study showed that Black patients who saw Black doctors received 34% more preventive services, in part because the patients likely communicated with those doctors more effectively and trusted them more. This suggests that finding a doctor you connect with should be a top priority. Everyone needs to know they have the right to seek a different doctor—one they feel understood by—at any time.

Is my community supportive of my health?

Heart health is affected by so many things, in particular by your community. Many people who smoke, for example, have difficulty stopping when they are around others who light up. On the other hand, those surrounded by a community focused on healthier habits may gain many more years of life. If you aren't part of a community that understands and supports your health, you might need to find one that does. The gym can be one such place. At times, I refer patients to online groups where people with similar conditions share their personal wins and losses, hopes and fears, as they provide companionship in what can be a solitary confinement with disease. I am impressed by both the moral support people receive and the helpful advice they get from others who live with the same illness and deal with the same issues. Often they talk comfortably about problems that few patients bring up in front of their doctors.



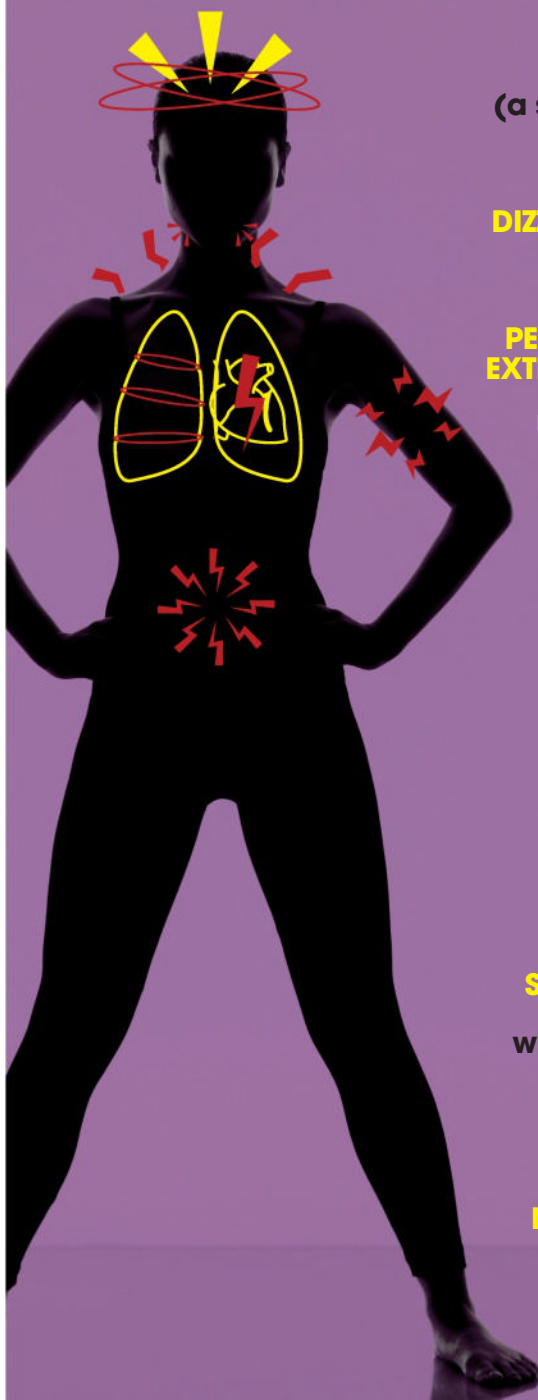
DID YOU KNOW?

One in every six deaths from cardiovascular disease is due to stroke.

KNOW THE SIGNALS

SIGNS OF A HEART ATTACK IN WOMEN

Men often have sharp, crushing chest pain during a heart attack. Some women do too, but their symptoms tend to be far less dramatic. Any of these symptoms is cause for concern.



DEPRESSION
(a sudden sense of foreboding and gloom)

DIZZINESS, LIGHT-HEADEDNESS, OR FAINTING

PERSISTENT AND EXTREME FATIGUE

UNEXPLAINED PAIN in the back, neck, jaw, or arms (just not the left arm, common for men)

UPPER-BACK PRESSURE that feels like squeezing

Pressure or a feeling of **FULLNESS IN THE CHEST**

SHORTNESS OF BREATH, even without activity

Ongoing **INDIGESTION**

SUDDEN NAUSEA AND/OR VOMITING



Get a Good Night's Sleep

The connection between heart health and a good night's sleep may not seem obvious at first, but let us walk you through it. If you turn in every night at a reasonable time that guarantees you at least seven hours of rest, "your heart rate and blood pressure dip by 10 to 20 points overnight, giving your cardiovascular system a much-needed break," says New York cardiologist Suzanne Steinbaum, D.O. Try not to get fewer than six hours, whenever possible. Less than that on a regular basis doubles heart attack risk, possibly because sleep loss can lead to belly fat. To help your heart, stop believing you can cheat on sleep. "It's like fuel for your body," says Steinbaum. Her best tip? "I think of sleep as what I need to do to be great the next day," she says.

3 Common Causes of High Blood Pressure

HBP is a time bomb for your ticker. Here's how to get your numbers down.



According to the American Heart Association, anything above 120/80 mmHg is considered elevated blood pressure, while anything over 130/80 mmHg is considered high. The good news: This issue can often be addressed with diet and lifestyle modifications. Here's how.

1. You love the snack food aisle.

Packaged foods are often loaded with salt, and excessive intake has a direct impact on blood pressure. According to the Centers for Disease Control and Prevention (CDC), Americans are consuming an

average of 3,400 mg of sodium a day, which is well beyond the recommended cap of 2,300 mg.

BP fix: Load up on whole foods rich in beneficial nutrients, like vegetables, fruits, whole grains, legumes, fish, nuts, seeds, and olive oil.

2. You're celebrating too much.

For people who drink, moderate alcohol consumption (one drink a day for women, two for men) isn't an issue and may have a protective effect on your heart. But binge drinking is tied to an increased risk for atherosclerosis, a buildup of fatty plaque in the arteries.

BP fix: Polishing off an entire bottle isn't doing you any favors. One drink means 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of spirits.

3. You snore.

In general, inadequate sleep may lead to high blood pressure by increasing stress hormones and increasing your cravings for junk food. But the biggest sleep-related cause of hypertension is sleep apnea—a disorder that causes someone to stop breathing for brief periods of time while sleeping due to an obstruction of their upper airway.

BP fix: See your doctor so they can conduct a sleep study to measure your oxygen levels throughout the night. If you are diagnosed, you will likely be prescribed a CPAP (continuous positive airway pressure) machine to wear at night to help you breathe.

a closer look at YOUR BLOOD VESSELS



THE AORTA IS THE MAIN ARTERY RESPONSIBLE FOR SUPPLYING YOUR BODY WITH ALL OF THE OXYGEN-RICH BLOOD IT NEEDS TO FUNCTION PROPERLY. IT'S THE LARGEST BLOOD VESSEL IN THE HUMAN BODY—ABOUT AS WIDE AS A GARDEN HOSE.



CAPILLARIES ARE TINY

The smallest of the body's blood vessels average only about 8 microns (1/3,000th of an inch) in diameter, or about a tenth the diameter of a human hair.

**Who knew?
If you laid out
all of the
arteries,
capillaries, and
veins in your
body
end-to-end,
they would
stretch for
60,000 miles.**

HERBAL
REMEDIES FOR...

HEART PALPITATIONS

A rapid heartbeat makes it hard to breathe and causes nausea and heavy perspiring. This condition is known as tachycardia, which is when your heart beats faster than 100 beats a minute. Symptoms vary but usually start and stop quickly. Here's how to help put the brakes on tachycardia.

Keep Potassium Levels Up

Potassium is an important mineral that helps slow heart action and reduce irritability of the muscle fibers. The mineral is found in fruits and vegetables, so getting enough shouldn't be difficult. But you can deplete it if your diet is high in sodium or if you take diuretics or overuse laxatives.



FOOD FIXES

eat it up!

Better health with every meal



snack smarter with healthy fats

Feeling peckish? Bypass the junk food drawer and nibble on smarter choices instead. Unlike sugary treats, foods that contain healthy fats like omega-3s and omega-6s can help you feel satisfied and help out your heart. Here are some of our favorites.

Olive toss. Mix 10 jumbo ones with a handful of grape tomatoes.

Hummus with veggies. Sprinkle smoked paprika on top of the dip and scoop it up with any vegetables you can find.

Homemade sweet potato chips. Slice them thin, toss with olive oil, and roast.

Avocado dip. Mash half an avocado and eat it with red pepper strips.

PB throwback. Smear peanut butter onto a banana or celery sticks.

eat chocolate to chill out

We always knew that our favorite treat loved us back. Over the years, research has found that the delicious dark variety of chocolate may help improve heart health, and now science is saying it may give your ticker extra protection during stressful events. According to a study in the *Journal of the*

American College of Nutrition, just a single serving of 85% dark chocolate buffered the effects of rising blood pressure and heart rate when healthy women were undergoing mental stress. But the key here is a single serving, not an entire box. And milk chocolate lovers please take note: It did not produce the same heart-helping effect that dark chocolate did.

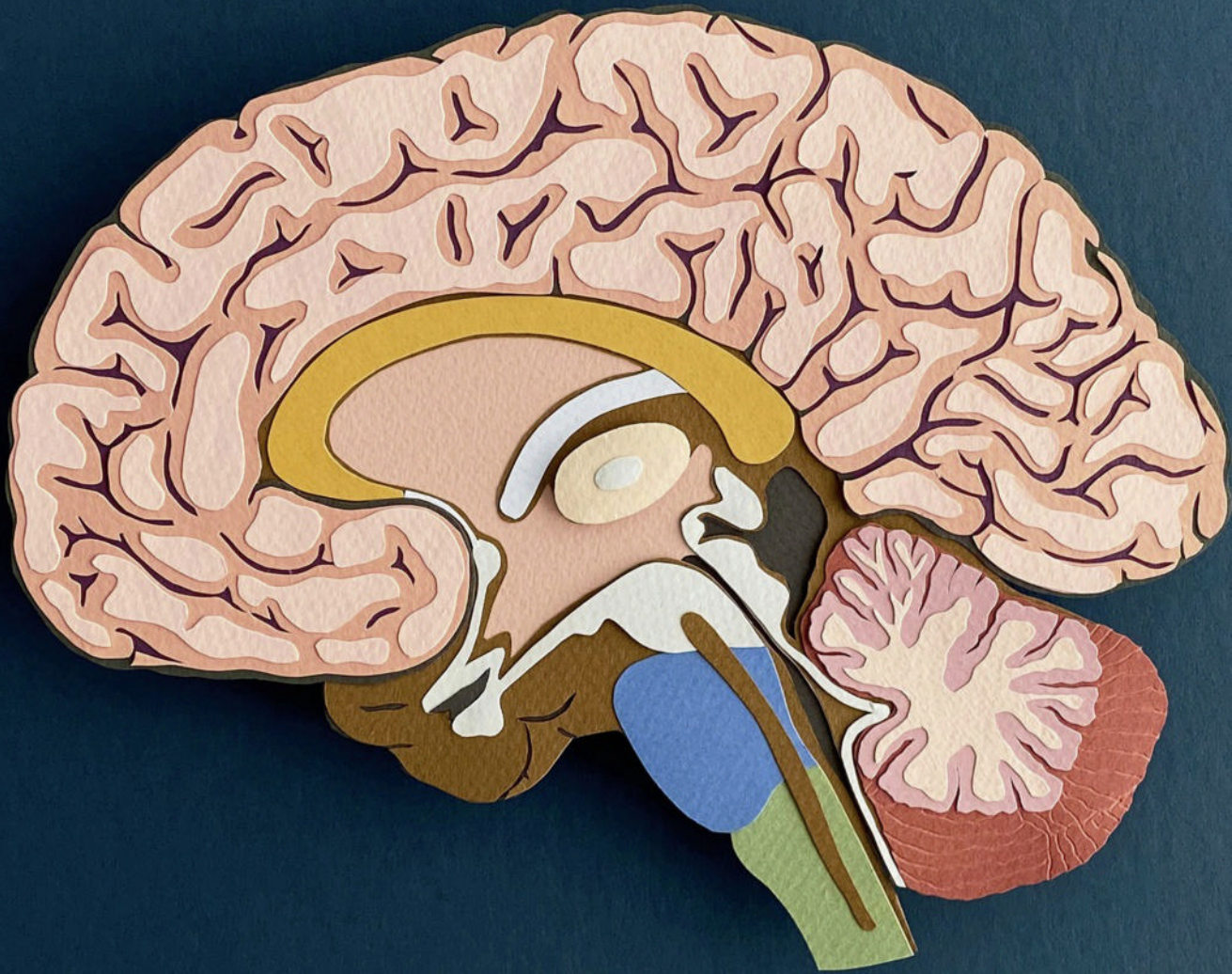
explore the Mediterranean

You may not be able to travel to Greece right now (deep sigh), but that shouldn't stop you from eating like you live there. According to a 2020 long-term study of more than 70,000 people in *JAMA Internal Medicine*, those who diligently followed the Mediterranean diet were consistently associated with a lower risk for cardiovascular disease. Not sure what you're supposed to eat? Think heavy on the fresh fruits and vegetables and whole grains, choosing to consume fish, eggs, and poultry rather than red meat, and dining on only moderate portions of dairy.

Q&A

How bad is salt for my heart health?

Most people don't need to track every single milligram of sodium they eat a day. If you fill up on produce, whole grains, and good fats, you will naturally keep your salt intake in control, because more than 75% of the sodium in the American diet comes from processed foods like deli meats and breads. If you have been diagnosed with high blood pressure, you could be among the one in four people who are sensitive to salt. To find out, first check your pressure, then dramatically cut back on sodium for a couple of weeks. When you recheck your BP afterward, if it's lower, then you should keep closer tabs on your salt intake.



MEET

your

BRAIN

***y*OUR BRAIN IS MADE OF SOFT NERVOUS TISSUE THAT FUNCTIONS AS THE CENTRAL COMMAND STATION FOR SENSATIONS, INTELLECT, AND NERVOUS SYSTEM ACTIVITY.**

And you definitely want it to run at peak performance. But cognitive function can decline with age, impacting your memory, focus, processing speed, and concentration. But that's not a foregone conclusion. Research suggests that you can keep your brain sharp throughout your life, a concept known as neuroplasticity. "Age-related cognitive decline slows down this plasticity," says neuro-ophthalmology researcher Mithu Storoni, Ph.D. "But you can slow this decline by forcing the brain back into 'grow' mode." You don't have to make seismic changes to stimulate this growth. Read more about what to do to benefit your brain in just minutes.



Boost Your Memory and Smarts

Feel smarter and sharper than ever before with these easy and effective ideas.

BUILD BRAIN VOLUME

Forcing the brain to find new approaches to solve problems builds connections between neurons—the cells responsible for receiving sensory input—similar to the way strength training builds muscle.

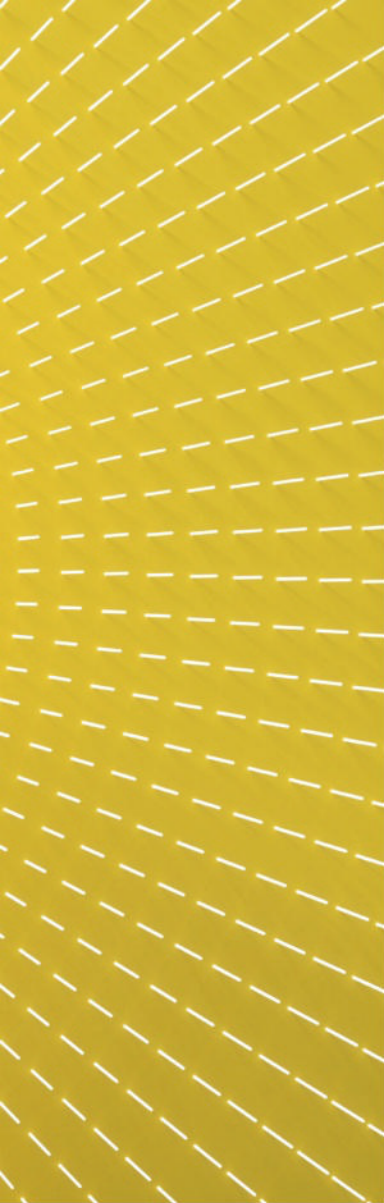
Change Up Your Activities

“Trying new things helps build new connections in the brain,” says Michelle Schoffro Cook, Ph.D., author of *Boost Your Brainpower in 60 Seconds*. Learning how to speak a new

language and mastering an instrument, for example, have each been shown to increase the size of the hippocampus, a brain region crucial for memory. But even far less lofty changes, like taking a new route when you go for a walk, can have a boosting effect.

Calculate the Tip in Your Head

Relying on your phone’s calculator to determine tips at restaurants robs you of a chance to build and maintain brain pathways. “While driving a car doesn’t weaken our body, it definitely



Do a Puzzle

Games and brainteasers are well known for providing mental perks, but University of Toronto anthropology professor and brain-game creator Marcel Danesi, Ph.D., says the ones that build new brain connections the best are ones that make you think, Eureka! “When you think, I get it! Or think, I see it!, imagination and reasoning come together,” he says. Suddenly, your brain is expanding to function in a way it wasn’t before you solved the riddle. What’s more, regularly challenging your brain has been linked with greater volume in brain regions known to be damaged by Alzheimer’s.

reduces the number of opportunities for us to walk, cycle, or run,” Cook says. “In the same way, using a calculator can reduce opportunities to strengthen the brain.” Mathematical skills need to be reinforced, or the brain will eliminate neural connections that aren’t in use, she says: “When it comes to the brain, it really is ‘use it or lose it.’” Try doing mental math the next time you’re out to eat—or jot down your calculations on a napkin. You can also calculate discounts in your head at the store.

Navigate With a Real Map

Following GPS directions is also a missed opportunity to build areas of the brain that control spatial skills. A study of London taxi drivers who navigated the city’s streets without technological assistance showed that the cabbies’ brains grew as they found their way around. Similarly, people in a driving simulation study at the University of Nottingham built more accurate maps of the route in their minds than did people who followed a navigation system.



BY THE NUMBERS

15

THE LENGTH IN CENTIMETERS of the average adult brain

70

PERCENTAGE by which adults 65 and older lower their risk of developing dementia by engaging in regular social activity

3

NUMBER OF TIMES as likely women are to be diagnosed with a brain tumor as men

20–30

seconds that your short-term memory lasts

Improve Focus and Clarity

Distractions can pose more difficulty as you get older, resulting in lost focus, slower mental processing, and less productivity. These suggestions can help counter those deficits.



Play Your Favorite Song

Listening to music improves attention and cognition in people with dementia and increases concentration and productivity in office workers. Experts once believed classical music was best for brains, but recent research suggests that any music you enjoy has benefits simply because you like it, says neurologist Barry Jordan, M.D., assistant

medical director of Burke Rehabilitation Hospital in White Plains, NY. Listening to a song you love lowers levels of the stress hormone cortisol, which can slow cognition, he says.



Dial It to a Nice 72°F

Feeling cold can be so distracting that it impairs your thinking. A Cornell University study found that increasing office

temperatures by 9°F led to a 44% reduction in typing errors. But being too warm also hampers performance: In other research, temperatures higher than 75°F were linked to decreased productivity. Stay clear and focused by setting the thermostat to the low 70s.



Let the Light In

Early-morning light suppresses production

of the sleep-promoting hormone melatonin and syncs your body clock with the time of day, making you more alert. "Every region of the brain and body has its own inner clock," Storoni says. Exposure to light aligns all your clocks.



Drink Enough Water Every Day

The right amount differs depending on your weight and activity level, but scientists at the Institute of Medicine say women need 91 ounces daily to stay hydrated, although much of that comes from foods you eat. Even mild dehydration can cause fuzzy thinking, according to a *Journal of Nutrition* study. One classic hydration mistake: You think you're hungry when you're actually thirsty. Try drinking a glass of water before nibbling on anything—you may find that the craving fades and your thinking gets clearer.



Could my migraines cause brain damage?

A migraine headache is caused by abnormal brain activity, but that doesn't mean it's causing permanent harm. According to the American Headache Society, studies show that migraine patients don't need to worry about long-term damage. But that doesn't lessen the pain of the moment. "During a migraine, the lining of the brain gets an inflammatory signal that irritates the pain nerves, and those send the signal deep into the brain. Then the brain activates a cascade of hypersensitivity to lights, sounds, and smells," says Wade Cooper, D.O., director of the University of Michigan's Headache and Neuropathic Pain Clinic in Ann Arbor. Preventing them from happening is your best way to avoid the pain. Get enough sleep, manage your stress, don't skip meals, and stay hydrated.

LOWER YOUR DEMENTIA RISK



One in every five adults 65 and older have mild cognitive impairment (MCI), a condition where people start to show subtle-but-measurable cognitive decline. Here's what you can do now to protect your brain in the years to come.

✔ **Manage blood pressure.**

Hypertension is a known risk factor for vascular dementia, or cognitive impairment caused by impaired blood flow to the brain.

✔ **Control cholesterol.**

High cholesterol can lead to clogged arteries and stroke, and experts say it's associated with an increased risk of Alzheimer's disease later in life.

✔ **Reduce blood sugar.**

Both type 1 and type 2 diabetes have been linked to MCI that leads to dementia, although it's not clear if treating diabetes can lower that risk.

✔ **Stay as active as possible.**

Getting daily physical activity is associated with a lower overall chance of developing dementia and cardiovascular disease.

✔ **Eat a nutrient-rich diet.**

Balanced eating plans, including the DASH, Mediterranean, and MIND diets, are associated with slower rates of cognitive decline beginning in middle age.

✔ **Lose weight, if necessary.**

Obesity is one of the most common risk factors of Alzheimer's disease and other forms of dementia, according to research.

✔ **Stop smoking.**

Smokers have a higher risk of developing dementia, but quitting decreased that risk almost to nonsmoker levels.

✔ **Drink alcohol responsibly.**

Light and moderate alcohol consumption is slightly protective against MCI, but excessive or long-term use can have the opposite effect.

✔ **Treat sleep disorders.**

Conditions like insomnia and sleep apnea appear to contribute to cognitive decline, so professional intervention may be necessary.

✔ **Stay social.**

Social isolation and loneliness have recently been linked to MCI and dementia, although the exact relationship between the two is still unclear.

✔ **Combat hearing loss.**

Scientists believe sensory deprivation through hearing loss could lead to cognitive decline, and hearing aids might actually improve memory.

✔ **Seek help for depression.**

Depression later in life is a risk factor for dementia, and vice versa. More research is necessary, but proper treatment may break the association.

✔ **Continue to learn.**

Education increases cognitive reserve, and the earlier you start, the better. The mind and the body aren't two separate systems; they're directly connected, affecting each other in ways that scientists are only beginning to understand.

a closer look at NEUROPLASTICITY

THAT'S YOUR BRAIN'S ABILITY TO CHANGE IN RESPONSE TO EXPERIENCE. MORE NEUROPLASTICITY EQUALS DENSER CONCENTRATIONS OF SOME BRAIN CELLS AND STRONGER, FASTER CONNECTIONS BETWEEN THOSE CELLS, SAYS HENRIETTE VAN PRAAG, PH.D., OF FLORIDA ATLANTIC UNIVERSITY.



RUN A MEMORY UPGRADE

Forty minutes of aerobic training three times a week for a year can increase the size of an older adult's hippocampus by 2%, which may lead to improvements in memory, according to research by Arthur Art Kramer, Ph.D., a psychology professor at the Northeastern University. "It appears that the type of activity is interchangeable, but we're still trying to figure out the exact criteria for frequency."

In his study, the participants walked, but you can also try moderate-intensity cycling, running, rowing, or swimming.



CALL ON JOE

Caffeine may protect memory and improve focus. Limit yourself to one cup 30 minutes before you need to be at your peak. The effect can last up to six hours, but studies show that higher dosages of caffeine (four to five cups of joe) may hinder cognitive performance.

13

Percentage jump in older adults' performance on working memory tests after they strength-trained (using increasing resistance) three days a week for six months

14

PERCENTAGE INCREASE IN PEOPLE'S TEST SCORES OF FLUID INTELLIGENCE (WHICH INVOLVES PROBLEM-SOLVING) AFTER THEY COMPLETED 25-MINUTE WORKING-MEMORY DRILLS FIVE TIMES FOR FOUR WEEKS



DID YOU KNOW?

The typical brain comprises only about 2% of the body's total weight, but uses 20% of its total energy and oxygen intake.



GAMES

train your brain

Try these fun teasers to strengthen your mind.

BRAIN TRAINER 1

Try to sign your name perfectly—with your eyes closed. Can't do it? Keep practicing until you can. Closing your eyes while you write awakens dormant neural circuits, says Gary Small M.D., a psychiatry and biobehavioral sciences professor at UCLA. "Activating these cells slows age-related cognitive decline." Once you master this challenge, close your eyes and try it with your nondominant hand.

BRAIN TRAINER 2

To strengthen your working memory, play the card game 2-Back, says Richard Restak, M.D., coauthor of *The Playful Brain: The Surprising Science of How Puzzles Improve Your Mind*.

- 1 Shuffle a deck of cards and place the deck facedown. This is your draw pile.
- 2 Name two cards—say, aces and kings—as trigger cards.
- 3 Turn the cards over one at a time and place them on a discard pile. When you draw a trigger card, try to name the card you turned over two cards previously. Check to see if you're correct and, if you are, hold on to that card. Keep going until you're through the deck. A perfect score is eight cards.



HERBAL REMEDIES FOR...

BRAIN FOG

Senior moments can happen to anyone, even those of us who aren't seniors.

Try: Rosemary

"Deeply inhaling fresh or dried rosemary can help boost cognitive function in the short term, studies show. For greater effect, use the more highly concentrated essential oil. But taking a moment to simply sniff a fresh sprig of rosemary once a day can also improve alertness."

—Ellen Kamhi, Ph.D., author of the Natural Medicine Chest

understand your amygdala

This tiny brain region rules many of your deepest emotions and plays a big role in controlling your impulses.



amygdala controls so many impulses and feelings is complicated and not fully understood, but much of it has to do with the adrenaline that's pumped out from other portions of the brain during a stressful or alarming situation. This adrenaline triggers the amygdala to send out a fight-or-flight signal, which dictates how you react. The adrenaline-amygdala combo is also what helps you learn from risky or unpleasant events. For example, if you take a financial chance and lose money or you get into a car accident, the amygdala prompts your brain to create a memory that (hopefully) helps you avoid repeating that misstep in the future. That snapshot process happens in joyful situations too, which is why you probably remember milestones like the birth of your first child as if they were yesterday. The amygdala also allows you to pick up on feelings of distress in other people—recognizing their emotions helps stimulate the amygdala, and it also helps you decide whether to react with, say, a great big hug, or perhaps a sincere apology.

What It Is

The amygdala is a pair of small, almond-shaped areas deep within the brain, one behind each ear. (You technically have two amygdalae, but they're typically referred to as a singular entity.) It's part of the limbic system—brain regions involved in behaviors and emotions—so it influences when we experience things like fear, pleasure, anxiety, and anger.

What It Does

You know that ice cream craving you just can't shut off? That's your amygdala tempting you. The shiver of fear you feel when you encounter something unsettling? Your amygdala is warning you that danger is near. And that handy ability you have to learn from negative experiences is also your amygdala at work, as is when you feel empathy or a desire to flirt. How the



TAKE A HEALTHY BRAIN WALK

People over age 65 who walked about five and a half miles at a moderate pace each week are less likely to develop dementia than those who were more sedentary. Lace up and get moving with this workout by Carol Frazey, the founder of the Fit School in Bellingham, WA.

Warm Up

Walk at a comfortable pace for five minutes. If you're strolling with a friend, you should still be able to talk to each other comfortably.

Speed Play

Find something on your path that creates intervals. Look for a repeating feature on your route (like mailboxes, telephone poles, or trees), and walk quickly past three of them. Slow down as you pass three more. Repeat the pattern for 15 to 20 minutes.

Cool Down

Walk at a comfortable pace for five minutes. Take in the scenery and breathe in the fresh air.

Make It Harder

Each week, add one more tree or mailbox during the fast-paced parts, but let the slow sections stay at the original three. By the second week, you'll be going fast for four landmarks, slow for three. The one after: five fast, three slow. This will keep you challenged and the workout fun.



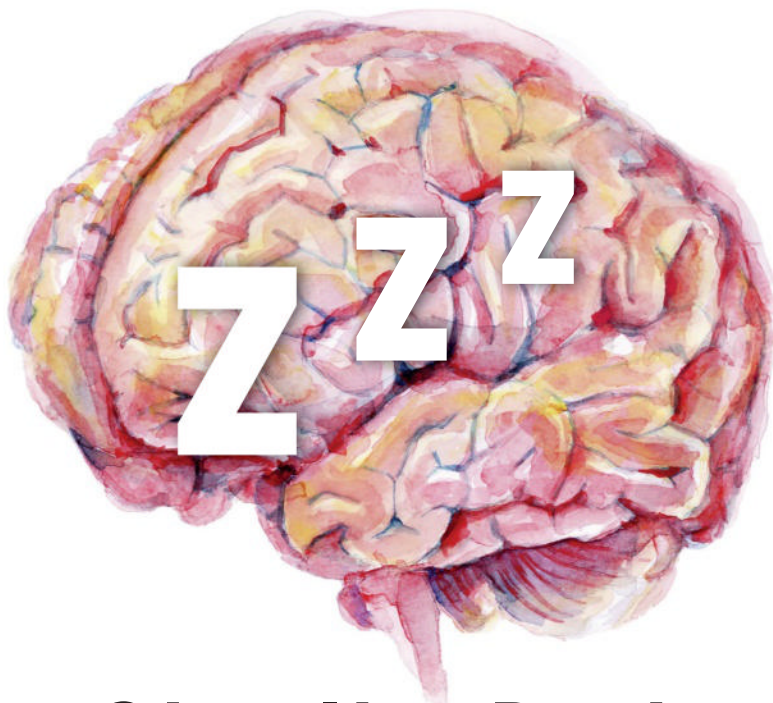
STAY ENGAGED!

The social isolation many Americans have experienced during the pandemic may have had an impact on our mental health beyond just feeling lonely. Adults 65 and older who are frequently socially active had a 70% lower risk of developing dementia than their least socially active peers, according to a Rush University study. Brain-protecting activities include sharing meals with others, volunteering, attending religious services, and visiting with family and friends. Even if you can't get together in person, connecting with pals via a phone or a computer can help you stay connected.

Q&A

Alzheimer's is scary, so why would I want to seek out a diagnosis?

Hiding symptoms and fearing what they could mean is understandable, but that's exactly the opposite of what experts wish people did. There are advantages in preparing to manage Alzheimer's, says John Schall, CEO of Caregiver Action Network. You may be able to take medication to mitigate symptoms. One class of drugs (cholinesterase inhibitors) prevents the breakdown of a chemical that helps nerve cells communicate with one another. The other drug (memantine) may be prescribed in later stages and regulates a chemical process involved in learning and memory.



Give It a Rest

Sleep deprivation and stress can affect your memory and overall brain health. Here's why and how to peace out and catch more z's.

don't cheat on sleep

Shut-eye is when your brain does its housekeeping. "It's almost like there's a janitor inside who cleans up some of the toxic byproducts," says Sandra Bond Chapman, Ph.D., a distinguished professor and chief director of the Center for Brain Health at the University of Texas at Dallas. You've heard it before and we'll tell you again: Get seven to nine hours of sleep every night. Being well rested keeps worries and stress at bay. Think of it as self-care.

stop overthinking everything

You don't have to solve all your problems at once. "The more information we take on, the more shallowly we think," Chapman says. So take a moment to focus on your breathing or on a meditation to quiet some of the mental noise that gets in the way of deep thinking. Every so often, step away from what you're doing to clear your head.

work near a window

One study from Northwestern University found that office workers who had windows visible from their desks slept about 46 minutes longer at night than those not exposed to natural light in their workplace. A view can keep your mood brighter too.

cut caffeine in the afternoon

Recent findings suggest that an evening cup of joe changes circadian rhythms at the cellular level. "Not only is the coffee you drink at 8 p.m. going to disrupt your sleep that night, but it's also telling your internal clock to delay bedtime by about an hour the following day," explains Tina Burke, Ph.D., a researcher at Walter Reed.

create a bedtime routine

To help you snooze, pay attention to what experts call sleep hygiene—in other words, bias your bedroom toward your getting good sleep. And stay off digital screens for an hour before bed; the blue light they emit keeps you from producing melatonin, a sleepiness hormone that rises in your body at night.

FOOD FIXES

eat it up!

Better health with every meal



fuel your mind smarter

Most people are stuck in a rut with the same mealtime habits they've had for years. To mix it up, add brain-healthy foods to your grocery list. What do blueberries, fish, and olive oil have in common? All contain nutritional benefits shown to improve cognitive function and potentially lower your risk of developing Alzheimer's disease or age-related dementia. It also helps if you cook more at home: When you prepare your own meals, you have greater control over what is going into your body.

avoid unhealthy fats

While no single food can prevent or cure cognitive impairment, cutting down on certain types of foods can make a difference. Which ones to sidestep? Those with saturated and trans fats, both of which are believed to damage your cardiovascular system and therefore your brain health. That means less red meat, butter, margarine, pastries and other sweets, and fried or fast foods .

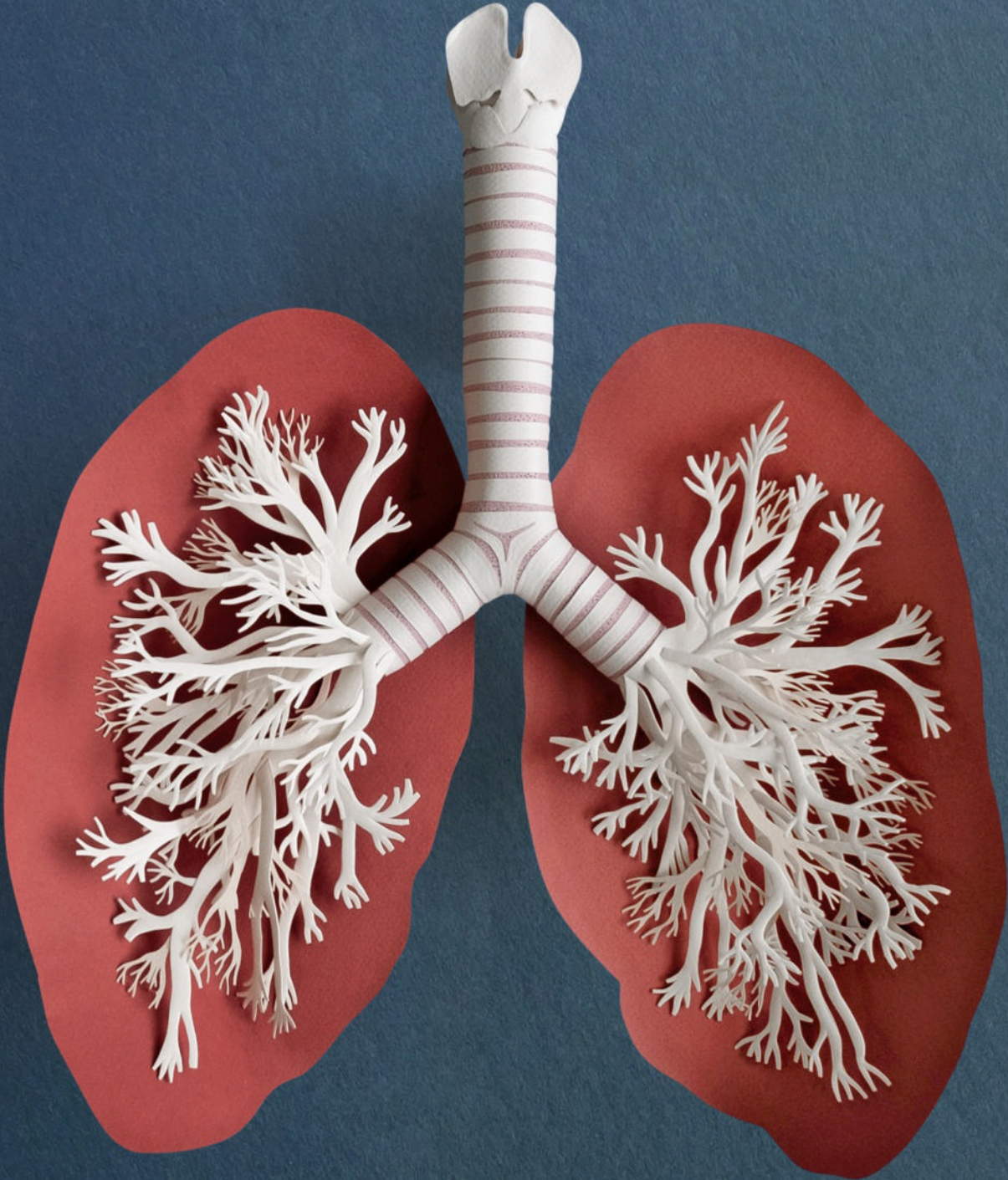
turn over a new leaf

One study found that people who ate one or two servings of leafy greens daily had the cognitive abilities of someone 11 years younger than people who ate none. Among greens, rainbow chard is a jazzy way to perk up a plate. And delicious peppery arugula is a nutritional standout: It is very high in nitrates, compounds that increase blood flow to the brain by dilating blood vessels (arugula also lowers your blood pressure!). "If your brain isn't getting enough blood flow, it's not getting enough oxygen, which can result in cell death," says Jennifer McDaniel, a spokesperson for the Academy of Nutrition and Dietetics.



DID YOU KNOW?

Can't remember where you put your keys? Blame the added sugar in your diet. Research shows elevated blood sugar levels harm your long- and short-term memory.



MEET *your* LUNGS

***y*OUR LUNGS ARE A PAIR OF BREATHING ORGANS IN YOUR CHEST THAT REMOVE CARBON DIOXIDE FROM AND BRING OXYGEN TO YOUR BLOOD.** It's likely that you've heard that "just breathe" advice a lot recently. And while focusing on your inhalations is useful when you need to calm down, taking a proper breath is easier said than done—especially in a world that can be hard on the lungs. COVID-19 has brought the air-filled organs to the forefront of our minds, but lung health has been a growing concern for docs for reasons besides that. Chronic respiratory disorders are on the rise in women, and lung cancer has jumped dramatically in recent decades, according to the American Lung Association (ALA). Smoking is still the primary cause, but air pollution is a huge factor too. The reassuring part: A few tweaks to your habits can dramatically improve your lung health and protect you from factors you can't control.

lungs

Breathe Easy

We're all paying more attention (cough, cough, COVID) now to what we inhale. Find out how to keep your lungs happy.

ALL-AROUND AIR

Where you take the majority of your breaths matters. "Your lungs are at the mercy of your environment," says Jamie Garfield, M.D., a professor of thoracic medicine and surgery at the Lewis Katz School of Medicine at Temple University. "They are constantly exposed to whatever pollution is around you." When you live in or visit places with large amounts of

environmental pollutants (carbon monoxide, black carbon, smog, and tiny particles like soot, industrial chemicals, and dust), your lungs have to work overtime, which could lead to chronic diseases like asthma, bronchitis, emphysema, and lung cancer, among others, she says.

Analyze Everything

One of the best things you can do to preserve lung health is to minimize your interaction with pollution as much as possible, says Gretchen Winter, M.D., a pulmonary and critical care physician at the University of Alabama at Birmingham. That means avoiding smoke (say, from cigarettes and forest fires), mold

(especially after severe weather), gases (from cleaning products, emissions, and smog), and radon. If you're an outdoor workout lover in an urban area, exercise in spaces where there's less vehicle traffic and fewer factories, Winter says. Also, check the air quality index in your area on sites like airnow.gov or apps such as Plume Labs and Breathe: Air Quality Index—and work out indoors on days with poor air quality.

DUST DILEMMA

Be aware of air quality inside too. "Dust mites, pet dander, and mold can lurk in your home and trigger allergies and asthma, or worsen existing respiratory symptoms," says Parimal Bharucha, M.D., head of pulmonary and critical care at Mercy Medical Group.

Clean House (Literally)

You can keep the buildup of these particles to a minimum by washing your bedsheets in hot water at least once a week and vacuuming or damp-mopping frequently. Wearing a mask while you clean also provides protection from chemicals and dust. Other smart moves: Toss any moldy things that can't be cleaned; reconsider long drapes and curtains, to help reduce the surfaces where dust mites like to gather; and break the news to your fur babies that they're banned from your bed.

SWEAT PRINCIPLE

Your lungs play an essential role in keeping you strong, Bharucha says. "But you don't think much about them until you experience problems." Exercising is a key way to make sure they stay in shape. National guidelines push for 150 to 300 minutes weekly of moderate cardio or 75 to 150 of high-intensity work.

Move enough

That could look like a 30-minute fast-paced walk Monday and Tuesday, a 60-minute longer walk Wednesday, another fast, half-hour stroll Thursday, and an hour of tennis Friday, with two rest days folded into each week. "As you become more physically fit, your body is more effective at getting oxygen into your blood and getting it to the parts of your body that need it," says Winter. Regular exercise also helps clear mucus from the lungs.

POSTURE POWER

Thanks in large part to more remote work, people are sitting more and for longer stretches. When parking it, you take shallow breaths instead of deeper ones. "Poor posture has us scrunched, with our pecs muscles and abs tight," says physical therapist Meredith Saxon-Kowalsky, owner of Center Sports Physical Therapy. Your lungs can't expand properly.

Straighten Up

Take breaks from sitting at least once an hour to stretch, Saxon-Kowalsky says. Stretches that

target your pectoral muscles open your chest, so you can take deeper breaths. Also focus on exercises that work your back muscles, like lat pulldowns, to keep you from rounding forward. This combo of flexibility work and resistance training will improve your posture, and in turn, your breathing. "And you'll need to work on strengthening the abs to sit straight," she adds.



DID YOU KNOW?

Lungs float on water, the only organ in the human body that does that.



THREE MYTHS ABOUT LUNG CANCER

Despite what you may have thought, smoking is not the only risk factor for this disease.

Here's a statistic many people don't know: Lung cancer takes more lives every year than colon, breast, and prostate cancer combined, making it the leading cause of cancer death in the United States. "There's a stigma associated with it because of the link to smoking," says David Cooke, M.D., head of general thoracic surgery at the University of California, Davis. However, anyone with lungs in their chest has some degree of risk. These are common misconceptions about the disease, and the facts that can help you protect your health.

MYTH **Only people who light up get lung cancer.**

Smoking is certainly the biggest risk factor. However, up to 20% of Americans who pass away from lung cancer never smoked at all. There could be underlying genetic factors that make someone susceptible, and secondhand smoke can increase a nonsmoker's risk of lung cancer by up to 30%. Experts are now even investigating the risk of "thirdhand smoke"—toxic residue

from smoking that can build up on walls and furniture and in carpets.

MYTH **It always starts with a cough.**

Actually, with adenocarcinoma, a type of cancer more common in women and younger people, coughing is not always an initial symptom. "Because squamous cell cancer is usually found in a major airway, it causes symptoms like coughing and shortness of breath early on, but adenocarcinoma can be asymptomatic longer," says J. Taylor Hays, M.D., an internist at Mayo Clinic Cancer Center. That means it can be difficult to detect and treat right away. For women, symptoms can be as subtle as voice changes or chest pain.

MYTH **It affects only older folks.**

While most people with lung cancer are over 65, younger people still can and do get diagnosed. Certain gene mutations that are linked to lung cancer have been seen in younger patients and could be hereditary, so it's important to have a conversation with your doctor if you have a family history of the disease.

85
PERCENT

THE INCREASE
IN LUNG CANCER
CASES AMONG
WOMEN IN THE
PAST 40 YEARS



BY THE NUMBERS

13

THE AVERAGE
NUMBER OF PINTS
of air a person
breathes every
minute

20,000

THE NUMBER OF
BREATHS
a person
takes every day

25,000,000

THE NUMBER
OF AMERICANS
who have
asthma, according
to the Centers for
Disease Control

116,000

THE NUMBER OF
WOMEN
diagnosed with lung
cancer every year



The Facts About COPD

Respiratory illnesses include the serious lung conditions grouped together as chronic obstructive pulmonary disease: emphysema, chronic bronchitis, and some forms of asthma. COPD inflames the airways and in some cases may lead to destruction of the lungs' air sacs, causing air to become trapped. Severe cases may even require lung transplants. Lung infections, such as pneumonia and flu, can also be deadly in patients with impaired lung function.

Who Is Most at Risk

Smoking is a major risk factor, but 25% of COPD sufferers have never used tobacco. Having a job that causes you to breathe in large amounts of dust and smoke can increase risk, as can inhaling fumes from burning wood. Other factors

that likely contribute to the development of COPD include childhood exposure to secondhand smoke or polluted environments and having multiple respiratory infections, says MeiLan Han, M.D., a professor of pulmonary medicine at the University of Michigan.

How to Prevent It

Quit smoking and limit exposure to secondhand smoke.

Decline in lung function slows within five years of stopping, says Charles S. Dela Cruz, Ph.D., an associate professor and director of the Center for Pulmonary Infection Research and Treatment at Yale University.

Steer clear of air pollution.

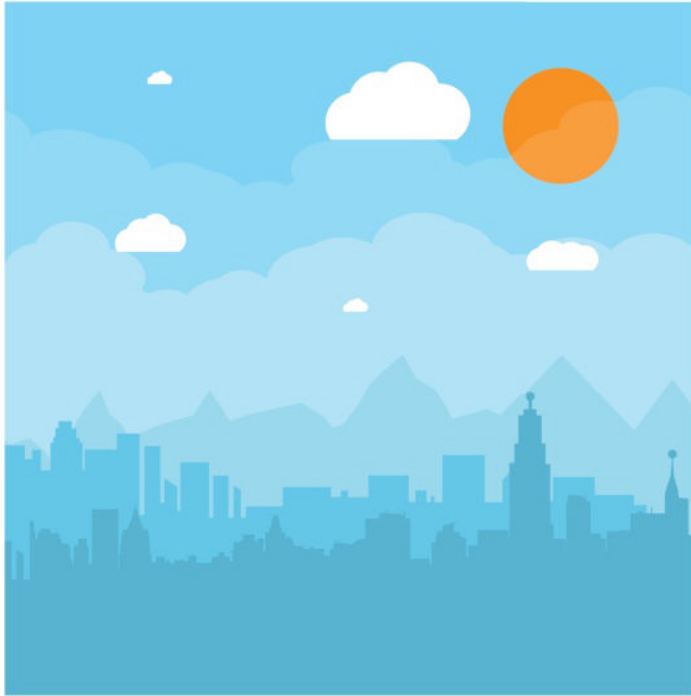
Heed local warnings about air quality and try to stay indoors on days when the air is bad. To avoid the impact of smog in heavily polluted areas, Dela Cruz recommends wearing a filtered air mask. The masks typically sold in drug stores may help

with large air particulates (such as dust or dirt) but are usually not effective at filtering out invisible pollution or smoke from wildfires. Specialty N95 masks, if fitted properly, are a better choice.

Pay attention to early symptoms.

They include shortness of breath, chronic coughs, and recurrent respiratory infections. "Don't assume shortness of breath is normal and you're just getting older," Han says, pointing out that roughly half of all those living with COPD are undiagnosed. A spirometry breathing test (in which you blow into a mouthpiece attached to a sensor) can identify the condition.

Insider Tips on Air Quality



File this under “annoying problems you can definitely solve”: The levels of some pollutants can be higher in indoor air than they are outdoors. And the gases and particles in the air can trigger symptoms like asthma and even damage your heart and lungs, says Anthony Wexler, Ph.D., director of the Air Quality Research Center at the University of California, Davis. Fortunately, there’s lots you can do to keep you and your family safe.



Don’t keep air (and irritants) locked in.

Open the windows on nice days, and run an exhaust fan—ideally, one that blows to the outside—while you’re cooking or showering. Moisture breeds mold, and ultrafine particles are released into the air every time you fire up your stove.

Tackle dust and grime.

Vacuum your home regularly using a machine with a high efficiency particulate air (HEPA) filter—these have been shown to remove at least 99.97% of ultra-small particles. Dust with a microfiber cloth to more effectively lock in any

dirt left behind. Whatever the chore, opt for cleaners in spray bottles— aerosols may contain volatile organic compounds (VOCs), which can irritate airways and cause allergies to flare.

Make your bedroom a cozy allergen-free zone.

You spend hours there every day (never enough, we know), so invest in quality mattress and pillow covers. They’ll prevent dust, pollen, pet dander, and mites from settling into your bedding and keep anything already trapped there from escaping into the air.

Freshen the air naturally.

Those troublesome VOCs? They’re present in some scented candles and air fresheners too. To cover up

inexplicable smells (from the kids, the dog—who really knows?), simmer citrus peels and cinnamon on the stove or arrange fresh herbs in vases.



Check the EPA’s air quality index.

Outdoor pollution can be bad on superhot days—and even on cold days, especially if there’s no wind. In such a case, you might try getting a ride with a friend or taking public transit. Any other day, do what you can to avoid major highways.

Close your windows in heavy traffic, and run the car’s AC.

Research shows that the cooling process also traps particles and VOCs, reducing pollutants inside the car by up to 34%. Try carpooling to save on fuel and make everyone’s air a bit cleaner.



If you don’t have much light: snake plant

Indoor plants improve air quality, and these potted faves are easy to care for. Just know that the snake plant’s flowers, which fortunately bloom rarely, can be sticky and should be removed.

If your desk has good light: golden pothos

Also known as devil’s ivy, the golden pothos thrives in hanging baskets and on trellises, but it’ll be just as happy in a pot at the corner of your desk.

If your desk has good light: peace lily

This flowering plant is one of the few that bloom reliably indoors. If pollen makes you or a coworker itchy, the yellow center (called a spadix) can be removed.

SIGHS OF RELIEF

You'd think you know how to breathe, since you do it all day long. But we use only 50% to 60% of lung capacity on a normal inhalation, says Mangala Narasimhan, D.O., medical director of the Acute Lung Injury Center at Northwell Health. "When you take a proper breath, you open lower areas of the lungs and bump up that percentage." To get closer to max capacity, practice "belly breathing," Saxon-Kowalsky says. Here's how:

- 1 Sit or lie flat in a comfortable position.
- 2 Put one hand on your lower belly and the other on your chest.
- 3 Inhale deeply through your nose, expanding your belly so it pushes out and lifts your hand.
- 4 Breathe out through your mouth or pursed lips (as if blowing through a straw), letting your chest fall and drawing your ab muscles into your spine.
- 5 Do 3 to 10 reps, 3 or 4 times a day.



DID YOU KNOW?

Your two lungs are not the same size. To make room for the heart, the left lung is smaller than the right.



A Lung Doctor's Guide to Healthy Lungs



Early in his medical training, pulmonologist Anand S. Iyer, M.D., knew that strong lungs are critical to good health. But ever since he began working in an ICU, and having recently treated people with severe COVID-19—putting them on ventilators, handling end-of-life care, and witnessing the long-term impact on their lungs in his clinic—he’s “gained a whole new respect for lung health,” he says. Here’s what he does to breathe easier.

1. HIIT It

I knew I needed to change my lifestyle a few years ago when I had to run to a code-blue emergency and arrived out of breath. That was my clue to drop the 20 pounds I’d gained in medical school and work on improving my lung and cardiovascular health. Now I do HIIT training with weightlifting

every other day, because it’s time efficient, and I build in bursts of aerobic exercise at work by briskly walking around the hospital or sprinting up stairs. I also work with a coach to build muscle mass in my chest using weights, since a strong chest wall and diaphragm are crucial to supporting a strong pulmonary system.

2. Take a Stand

When I work from home, I move around constantly so I don’t hunch, which compresses my rib cage and prevents my lungs from taking a deep breath. Every hour, I try to remember to change my position—even if it’s moving from the desk chair to my dining-room table. Every time I stand up, I improve my posture, breathe deeper, and improve blood flow throughout my body.

3. Mask Up

If, after the pandemic, I travel to a city with a high pollen count or an air quality index in the orange range or above, I’ll plan to pack a mask to

prevent inhaling allergens (I have bad seasonal allergies) or pollutants, such as smog and traffic fumes. I also wear a mask if I’m doing yard work or a dusty home-improvement project—dust can irritate the lining of the airways and lead to chronic lung disease. I don’t expose myself to sprays, polishes, or cleaners with high concentrations of bleach, ammonia, or other volatile organic compounds. There’s some science that people who work with these regularly can have diminished lung function or develop COPD, a leading cause of death in the U. S.

4. Beat the Snot Out

If I get a cold, I’m vigilant about getting rid of mucus as fast as possible so it doesn’t drip down and settle in my chest and make me sicker. I cough up mucus from my chest, blow my nose constantly, or use one of those sinus rinses from the pharmacy.

5. Breathe, Only Better

I practice mindful breathing when I can. I don’t know how much it benefits my lungs, but I do know it helps me manage the toll of a high-stress job. I like the Breathe app on my Apple Watch. I match my inhalation and exhalation to the circles as they open and close, and I’m amazed how much calmer I feel after just a couple breaths.



elderberry

HERBAL
REMEDIES FOR...

COUGHS

A cough is your body's reflexive response to mucus, germs, or dust that irritate your throat and airways. It helps protect your body, but sometimes you need it to stop.

slippery elm



8 NATURAL FIXES

1. A spoonful of honey
2. Thyme tea
3. Fresh pineapple
4. Black pepper & honey tea
5. Warm water & salt gargle
6. Elderberry syrup
7. Lemon wedges
8. Slippery elm lozenges

SO YOU USED TO SMOKE...

Maybe it was part of a too-cool phase in college, or you used to hang out with a smoker. No judgment here. But listen to your body even more now. "Lung damage caused by smoking does not always show up in symptoms or on medical tests until it's more severe," says Gretchen Winter, M.D., a pulmonary and critical care physician at the University of Alabama at Birmingham. But if you have shortness of breath or a chronic cough, tell your doctor. They may recommend pulmonary function tests to help detect lung decline. Pulmonologists will always tell you to avoid putting any tar, soot, or toxins that come from smoking or vaping into your sacs. If you use cannabis to manage anxiety or pain, consider edibles (tinctures, oils, gummies) because they don't impact your lungs. And if you were a smoker, once you stop, your rate of lung decline significantly improves, says Winter.



SPOTLIGHT ON

your airways

Anatomy 101

Your respiratory system looks like an upside-down tree. Your windpipe is the trunk, and it connects to the branches—tiny, hair-lined airways that fill your spongy lungs. Combined, your lungs weigh about 3 pounds and allow you to inhale up to 2,400 gallons of air a day.

Keep Them Healthy

Inhale clean air—that means don't smoke; make sure your home is free of radon, an odorless gas that can cause lung cancer; and exercise inside when air quality is bad (you can check this at airnow.gov). Staying hydrated is also vital to maintaining proper mucus

consistency, says pulmonologist Randall Brown, M.D. Exercise is key. It helps your lungs become more efficient at taking in oxygen; you'll be less winded walking up stairs and any time you're active.

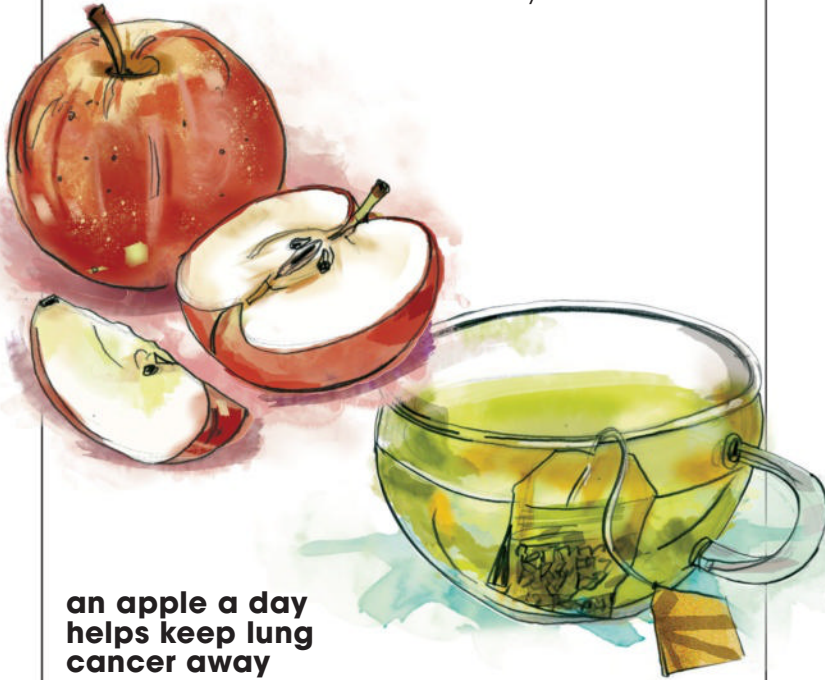
Problem Signs

A cough is often due to a cold or flu, but if it's mild and persists for more than a month, it could signal asthma, allergies, reflux, or postnasal drip. A bad cough, chest pain, or difficulty breathing may point to pneumonia or even lung cancer. If you notice anything out of the ordinary or a cough that lingers, see your doc.

FOOD FIXES

eat it up!

Better health with every meal



an apple a day helps keep lung cancer away

There's some truth to that old saying, especially if you used to smoke. Poor lung function, which can increase risk of death from all diseases as well as lung cancer, can be slowed and repaired thanks to Eve's favorite fruit. A study from the Johns Hopkins University found that a diet rich in apples (and tomatoes) may help repair the lungs of ex-smokers, by "slowing down the lung's natural aging process, even if you never smoked," says lead study author Vanessa Garcia-Larsen, Ph.D.

go green for pulmonary fibrosis

Instead of downing your daily cup of joe, sip green tea instead. Not only has it been credited with helping improve brain function and heart health, new research shows that it may protect against pulmonary fibrosis, a progressive form of lung disease where scar tissue builds up and limits the body's

oxygen supply. A study from the University of California, San Francisco found that patients who took the green tea extract EGCG "showed lower levels of proteins involved in lung fibrosis" than those that did not. While the science is new, researchers find the results promising.

the asthma-vitamin D connection

People with severe asthma may have low vitamin D levels, and foods like milk, eggs, and salmon all contain the essential vitamin. Eating more pink fish may help little ones too: Kids who added fatty fish to their diets had improved lung function after just six months, found a clinical trial from La Trobe University in Sydney, Australia. "It's high in omega-3 fatty acids, which have anti-inflammatory properties," says lead researcher Maria Papamichael.

Q&A

Is vaping better for me than smoking?

Many regular cigarette users turn to e-cigs to try to stop smoking, but there's mixed evidence about how effective this practice is, and these products are not approved by the FDA as a cessation aid. "E-cigarettes may help some patients to quit smoking, but we recommend other methods of nicotine replacement, such as prescription medications or over-the-counter products such as skin patches, lozenges, and gum," says pulmonologist Humberto Choi, M.D. If you do use e-cigarettes to kick the habit, it's best to stop using them as soon as you feel confident you've beat it. While more research is needed to truly understand the long-term effects of vaping, most experts don't recommend it. "Cigarettes are incredibly lethal. Vaping isn't as harmful, but it certainly isn't harmless," says tobacco-control advocate Robin Koval.



MEET

your

SKELETON

***y*OUR BONES ARE THE RIGID SUPPORT SYSTEM MADE OF COLLAGEN AND CALCIUM PHOSPHATE THAT HELP KEEP YOU UPRIGHT AND SERVE AS A PROTECTIVE CAGE FOR YOUR INTERNAL ORGANS.** They may break when there's a mishap—or ache while they are healing—but they generally stay strong even on the days when you are feeling particularly weak. So what should you do for them in return for their constant guardianship? Grow and strengthen them as much as possible throughout every decade. "Investing some time and energy in your bone health will ultimately set you up for a longer, healthier life and a fitter, firmer body," says geriatrician Diane L. Schneider, M.D., author of *The Complete Book of Bone Health*. Here are some of our favorite ways to show your bones some extra love, and some tips on how to care for your joints like your hips, knees, and shoulders too.

Build Strong Bones

They help form our shape and carry the weight of our entire bodies. Treat 'em right with these tips.

Do Something Active Daily

"Your bones are constantly in flux, building up or breaking down, depending on the signals you send them," says Diane L. Schneider, M.D., author of *The Complete Book of Bone Health*. So whether you're taking an evening walk or binge-watching while lying on the couch can determine if you'll build bone or body fat. Mesenchymal stem cells in bone marrow respond to exercise. If you're active, these stem cells make osteoblasts, the cells that build bone. If you're sedentary, they become fat cells instead. "You decide their fate by how much you move," says Schneider.

Aim for at least 30 minutes of activity a day, 60 minutes if you're postmenopausal. The more you do now, the more active and independent you'll remain.

Walk (At Least) 5,000 Steps a Day

"The repeated impact of your feet striking the ground is like strength training for your entire musculoskeletal system," says Jordan Metzl, M.D., a sports medicine physician at the Hospital for Special Surgery in New York City. In fact, one study found 5,000 steps a day—about two and a half miles—can preserve bone density in women ages 50 to 65.

To firm your belly while you're at it, pick up your

pace. Women who did three 30-minute fast-paced walks or runs and two slower walks for 16 weeks lost significantly more belly fat than women who went more slowly, according to research from the University of Virginia.

Hoop It Up

Want to feel like a kid and do your bones and belly a favor? Grab a Hula-Hoop. It's a fun and gentle way to help counter the bone-harming effects of sitting. At the same time, you'll score a standing abs workout and torch some calories (about seven per minute, similar to a boot camp or cardio class), says Amy Rogers, founder of the Hoop Movement in New York City. Keep a hoop nearby, and use it as a break from sitting. Start with a larger hoop (about 40 to 42 inches in diameter) that weighs about 1.5 pounds to 2 pounds, says Rogers, as it will rotate more slowly, making it easier to control.



Supersize Your Strength

Challenging your muscles does wonders for your bones. "Strength training causes muscles to pull on bones, which activates bone-building cells in your body," says Robyn Stuhr, M.A., a clinical exercise physiologist in San Diego. When postmenopausal women did two or three strength-training routines along with three cardio sessions each week, they increased the bone density in their legs and pelvises by up to 29%, according to a study from Penn State University. "Strength training also increases muscle mass, which turns your body into a fat-burning machine," says Wayne Westcott, Ph.D., retired director of exercise science at Quincy College. Aim for three full-body strength-training sessions a week.

Grow a Green Thumb

Gardeners tend to have even better bone density than women who walk, jog, swim, or do aerobics, according to a study in the *Journal of Women & Aging*. "Gardening requires activities like digging holes and pulling weeds, which challenge and strengthen bones," says Lori W. Turner, Ph.D., a professor of health science at the University of Alabama in Tuscaloosa. Being outside in the sun also spurs your skin to produce vitamin D, which bones need to absorb calcium. Tending veggies can also help keep your weight in check. A 150-pound person will burn 125 calories for every 30 minutes of

light gardening activity. Aim to do two and a half hours of gardening a week, either in your own yard or at your local community garden.

Squeeze in a Mini Yoga Session

Getting on your mat a few times a week can add up to big gains for your frame. When postmenopausal women did 12 minutes of yoga poses such as Tree, Warrior II, and Triangle daily for two years, they increased the bone density in their spines, hips, and femurs, according to a study published in *Topics in Geriatric Rehabilitation*. Just make sure to treat yourself to Savasana, too: Research shows that deeply relaxing restorative poses help lower stress, which may reduce cortisol, a hormone linked to belly fat.

Take a Plunge

If land-based exercise like running, strength training, or even brisk walking hurts your joints, move your workouts to the water. Research shows that water aerobics and swimming laps may reduce age-related bone loss and even increase bone mineral density in middle-aged and older women. "Water places some demands on bones by providing resistance," says Vini Simas, M.D., Ph.D., a sport scientist at Bond University in Australia. Another benefit: The cardio aspect of water-based exercise increases heart rate, which in turn burns calories. Pushing against that H₂O also forces your muscles to work harder, helping you build more of the metabolism-revving tissue that stokes your fat-burning

fire throughout the day. Swap a weekly walk or two with a splash in the pool. If you do water workouts only, aim for a minimum of three 60-minute sessions a week for the best bone-building results. (Many community pools and YMCAs offer classes.)

Soak Up (a Little) Sunshine

Every tissue and cell in your body, including your bones, has a receptor for vitamin D, which bones need to stay strong and function properly. "Vitamin D enhances intestinal calcium and phosphate absorption, both of which are necessary for maintaining bone density," says Michael F. Holick, M.D., Ph.D., a professor of medicine, physiology, and biophysics at Boston University Medical Center. Keeping your levels in a healthy range may also slim your middle: Research shows that women who get enough vitamin D are less likely to pack on belly fat than women who are deficient. Aim to expose your arms, legs, back, and abdomen without sunscreen two or three times a week for 10 to 15 minutes between the hours of 10 a.m. and 3 p.m.

Avoid a Workout Rut

If you're already exercising regularly, make it a goal to vary your activity and intensity level throughout the week. When you do the same type of exercise every day, your bones adapt to the level of strain

and don't become any stronger. "Once the routine feels like a routine, you need to change it up," Schneider says. Keeping your brain and body guessing can also help you shed body fat. "When a workout is no longer as challenging, your heart rate doesn't go as high, and you burn fewer calories," says Westcott. Start now: Aim to do a variety of cardio exercises throughout the week, such as walking or dancing, along with weight training and balance work.

Jump 20 Times a Day

Every time you land after a jump, you put stress on your leg and hip bones, strengthening them over time, Stuhr says. Here's proof: In a study at Brigham Young University, doing 10 jumps twice a day, resting for 30 seconds after each jump, helped women increase hip-bone density by 0.5% in 16 weeks, which researchers say is significant. (Meanwhile, those in a control group lost an average of 1.3% of their bone density.) Each time you jump, you'll also ratchet up your heart rate and your metabolism, which leads to fat loss, says Michele Olson, Ph.D., an exercise physiologist and senior clinical professor at Huntingdon College. Start by doing a few jumps a day, resting for 30 seconds after completing each one.

a closer look at YOUR KNEES

LIKE ALL YOUR JOINTS, IT HAS BOTH HARD AND SOFT STRUCTURES. THE THIGHBONE, SHINBONES, AND KNEECAP ARE SUPPORTED BY MUSCLES, LIGAMENTS, AND TENDONS. THERE'S ALSO A LAYER OF CARTILAGE CALLED THE MENISCUS: IF IT WEARS OUT, YOU GET OSTEOARTHRITIS, AND EVENTUALLY BONE GRINDS ON BONE. DON'T WAIT UNTIL PAIN GOES FROM "IT'S FINE" TO "OUCH!" A DOCTOR SHOULD CHECK OUT ANY PAIN THAT LASTS LONGER THAN TWO WEEKS.



**1½ TIMES YOUR
BODY WEIGHT**

The amount of force on your knees with each step you take.

THE BIGGEST THREAT

Extra weight is your knees' #1 enemy.

"Getting heavy is terrible for your knees," says Mary I. O'Connor, M.D., professor of orthopedic surgery at the Mayo Clinic in Florida. But losing as little as 11 pounds can reduce your risk of knee osteoarthritis by more than 50%. You can also take pressure off this joint by strengthening the muscles around it through exercise.



15

MINUTES

**HOW LONG TO ICE A SORE KNEE
(UP TO FOUR TIMES A DAY)**

WHEN YOUR KNEES ARE TELLING YOU TO SEE A PRO

YOU HEAR/FEEL...

POPPING

It might be...

Harmless gas bubbles breaking up in the joint or soft tissue stretching or snapping back when you move. If it doesn't hurt, you don't need care.

CRUNCHING

It might be...

Patellofemoral pain syndrome, which happens when the kneecap is out of alignment. Physical therapy (PT) can help.

GRINDING

It might be...

Osteoarthritis, the wearing down of cartilage. Treat it with PT but weight loss helps too. Knee replacement surgery is an option if the cartilage has worn down too much.



What can I do to avoid hunched shoulders?

If your mom ever yelled at you to stop slouching, she was actually protecting your bone health. Your shoulder blades want to be sitting flat on the rear of your chest wall, but when the upper back stays in a rounded position for prolonged periods, they get pulled out of position, straining all the tissues trying to keep them where they belong. Over time, your hunched-over chest muscles also become tighter, which reinforces your rounded back. The result, besides poor posture, is that the soft tissues and bones in your shoulders rub, pinch, and snap against each other as you move—hello, inflammation and painful wear and tear. To slouch-proof your shoulders, look for exercises that strengthen your back and stretch your pecs.



arnica

HERBAL REMEDIES FOR...

KNEE PAIN

Knee pain affects people of all ages and can be caused by injury, arthritis, or an infection.

GO HOMEOPATHIC

Arnica, an herb that comes from a European flower, has natural anti-inflammatory properties. German scientists found that it reduces swelling of the knee from surgery. Use homeopathic arnica as an adjunct to ice or conventional medications you may be using for knee pain, says Jane Gultinan, retired dean of naturopathic medicine at Bastyr University in Kenmore, WA. Rub arnica ointment on bruises or strained muscles, or take it up to six times a day in the form of three pellets placed under the tongue.



THE LOWDOWN ON

your spine

The centerline for your skeleton has many jobs, all equally crucial. Have your own back by keeping it healthy.

Pillar of Support

Your spine allows you to walk upright and hold your head high, but your backbone is not just one bone: There are 24 circular vertebrae, most of which are sandwiched between shock absorbers called discs. This setup allows stability and mobility as you bend over, lean back, and twist. The spine also protects the spinal cord. Their nerves transmit messages to and from the brain that, for example, tell your heart to beat and your lungs to breathe. The spinal cord is also the “wire” through which your brain commands your limbs to move. That’s why an injury to the spine can be so debilitating. Luckily, many muscles, ligaments, tendons, and discs are there to help protect it from most tweaks and blows.

The Back Pain Lowdown

Your lower back has been through a lot. That’s because this area, the most mobile part of your spine, bears the weight of your upper body. Over time, the wear and tear from bending, lifting, and poor posture can cause muscle spasms and ligament strains. Sometimes when a certain nerve is pinched, the pain can run down your butt and into your leg, a condition called

sciatica. Lower-back pain (LBP) is so prevalent that experts estimate over 80% of Americans will experience it in their lifetimes. Fortunately, most of it can be managed. When a flare-up hits, avoid movements that irritate it, try ice or heat, or use ibuprofen. If it hasn’t let up after six weeks, see your doctor. And if you feel weakness or numbness or can’t control your bladder, bowels, or balance, don’t wait: These could be signs of serious spine damage.

Maintain Your Posture

Sitting hunched over your phone doesn’t do you any favors. Bad posture can put undue stress on your backbone and the muscles working to keep it in its natural curve. Strong hip, butt, back, and abs muscles can help you sit and stand tall, and maintaining your ideal body weight can take some pressure off those vertebrae. Exercising to stay limber is key, especially as you get older and discs become less cushioned, leading to more stiffness and pain. Stick to a varied routine, combining low-impact cardio, stretching, and light weight lifting, to help stave off osteoporosis, a condition in which the body’s bones (including those in the spine) get weak and brittle.

YOUR HIPS DON'T LIE

When something isn't right with them, you often hear about it from other parts of your body.

INGENIOUS DESIGN

Your hips are built like a video game joystick: A ball on the end of your femur fits into a socket. The design allows you to lift, rotate, and shift your legs in many directions, smoothly gliding around so you can salsa, squat, kick, or step over your kid's dirty laundry pile.

THE ROOT OF ACHES

If you have pain in your groin, knees, or lower back, it could be because your hips aren't doing so well. Inflammation, arthritis, and injuries can make you walk oddly or sit with poor posture. Overcompensating for the pain can put pressure on the spine, knees, and other joints, causing damage over time. Also, the hips are the hub of many nerves that connect to other areas of the body, so if you irritate a nerve there, you might feel it in your keister. Fortunately, pain rooted in the hips can often be alleviated by rest, anti-

inflammatory drugs, or physical therapy, says orthopedic surgeon Nicholas DiNubile, M.D. Losing weight can take pressure off those joints too.

SMART SITTING

Too much sitting can tighten hips, eventually causing the femur to grind against its socket. Good posture can help: Sit tall with your feet flat on the floor, knees at the same level as your hips. Try not to slouch or lean to one side, and get up at least every hour to keep your hips mobile. After a long day, try a supine twist: Lie faceup on the floor, arms in a T, palms down. With your left leg straight, bend your right knee and place that foot on your left knee. Exhale and slowly drop your right knee toward the left side. Don't force it—go only as low as you can with your shoulders flat on the floor. Hold for a few breaths. Inhale to bring your leg up; switch sides.



DID YOU KNOW?

Each year, more than 300,000 people are hospitalized for hip fractures.





BY THE NUMBERS

206

THE NUMBER OF BONES that support your every move

1,000

THE NUMBER OF MILLIGRAMS of calcium you need each day. If you're a woman over 50, you need 1,200 mg.

30

THE AGE AT WHICH YOUR BONES are as dense as they're going to get. (After that, you need to maintain what you have with a nourishing diet and exercise.)

BONE HEALTH BY DECADE

“Bone is a dynamic tissue,” explains Andrea Singer, M.D., chief medical officer of the National Osteoporosis Foundation. “Old bone is constantly being broken down and replaced with new bone.” Until your 40s, the rates of breakdown and formation are relatively balanced; after that, bone loss exceeds the rate of new growth. While you can never regain the peak bone mass of your earlier years, you can significantly slow the loss, Singer says. These strategies can help.

40s **Know your osteoporosis risk.**

Your odds of developing the condition are determined by a variety of factors, so it’s important to talk with your doctor about any circumstances in your life that could accelerate your bone loss. Family history and the level of peak bone mass you built in your youth have a major effect on your risk, but so do certain illnesses and medications. “Conditions such as rheumatoid arthritis, celiac disease, and Crohn’s disease can speed bone loss, as can medications such as corticosteroids,” says Wayne Johnson, a spokesperson for the American Academy of Orthopaedic Surgeons. Race is also a factor: Women of Caucasian and Asian descent have the greatest risk.

50s **Ask your doctor about bone-density testing.**

While the US Preventive Services Task Force recommends that all women have their bone mass measured at age 65, your doctor may advise you to get tested now if you have risk factors. These include a recent fracture, a height loss of ½ inch or more within a year, or a total height loss of 2 ½ inches from your original height. Women with certain lifestyle factors, such as alcohol abuse, smoking, or

prolonged physical inactivity, may also need to be tested earlier, since they’re at greater risk of developing osteoporosis or its precursor, osteopenia, at a younger age, Johnson says.

60s **Minimize your risk of falling.**

About 1 in 3 people over 65 fall each year, and many of these falls result in broken bones. A few simple steps can prevent them, Singer says: Wear shoes with nonslip soles indoors, remove throw rugs that you could easily trip over, keep hallways and corners well lit, and take extra care with medications that can affect your balance or make you drowsy.

70s+ **Don’t ignore hip pain.**

As your risk of falling increases, so do the odds you’ll break a hip: Hip fractures are most common between the ages of 75 and 79 and sometimes go undetected. “If you have a nondisplaced hip fracture—meaning there’s a crack in a bone but the bones are still aligned—you might not experience symptoms right away,” Johnson explains. If you do develop pain, let your doctor know immediately. “An early diagnosis is important, because a nondisplaced fracture could turn into a displaced one, which requires a bigger surgery,” he says.



Age-Proof Your Armature

If bones had feelings, they’d fear menopause (OK, and maybe sky diving). Thanks to dropping estrogen levels, you can lose up to 20% of your bone density within five to seven years after your last period, says Singer. That can set you up for osteoporosis, the disease that makes your skeleton lacy and fragile. The best prevention: Get enough exercise and calcium before menopause.

FOOD FIXES

eat it up!

Better health with every meal



focus on calcium and vitamin d

The two work in tandem to protect your bones: Calcium helps build them and slows the rate of loss, while vitamin D helps your body absorb calcium. Women in their 40s should get 1,000 mg of calcium a day, ideally from foods such as low-fat cheese, yogurt, milk, fatty fish like salmon, and leafy green vegetables. Vitamin D, on the other hand, is difficult to get from diet alone because few foods contain it (fish, eggs, and fortified products such as milk and cereal are good sources). You can get some or all of the 600 IU you need daily from sun exposure, but because so many factors (such as sunscreen use and season) can interfere with the process, it's not a reliable source. Consider talking to your doctor about having your vitamin D level tested to see if you would benefit from a supplement.

pass the pesto

This tasty pasta topper does more than make a delicious meal. Not only does the primary ingredient basil contain

antioxidants like vitamins A and C that help fight the free radicals that can harm healthy bones, it's also a very good source of vitamin K, which helps with the building of your skeleton. Swap walnuts in for pine nuts, and you'll get a substantial amount of manganese, which has been shown to prevent osteoporosis in combination with calcium and copper.

eat flame-fighting foods

Chronic inflammation not only increases your risk of disease, but it can also harm your bones. "Inflammation negatively affects bone building by altering levels of cytokines, which are proteins released by cells that regulate bone remodeling," says Tonya Orchard, Ph.D., an associate professor of human nutrition at Ohio State University in Columbus. (Bone remodeling is the process of bones quietly and constantly breaking down and being rebuilt to help keep your skeleton strong.) You can both quell your inner fire and slash belly fat by avoiding foods that are high in added sugar or saturated fat, like pastries, cookies, and red meat, as well as sugar-sweetened beverages. Instead, opt for fruits and veggies, lean proteins, and whole grains, Orchard says.



DID YOU KNOW?

Each foot has 26 bones, 30 joints, and more than 100 muscles, tendons, and ligaments, all working to provide balance and mobility.



MEET

your

DIGESTIVE SYSTEM

***y*OUR STOMACH IS A SAC BUILT WITH MUSCULAR WALLS THAT IS LOCATED BETWEEN THE ESOPHAGUS AND THE FIRST PART OF THE SMALL INTESTINE.** It rumbles, gurgles, and sometimes aches, and it can be tricky keeping it happy. “The digestive system is amazingly complex,” says gastroenterologist Chris South, M.D. “Your personal food processor is like an orchestra: When everyone performs well, beautiful music flows. If a musician has an off day, it sounds like middle school band practice—which means bloating, pain, constipation, and other digestive disasters. Here’s how to stay in tune.

Go With Your Gut

Trust your instincts about seeking better health and learn more about how your digestive system works.

10 THINGS YOU NEED TO KNOW ABOUT GUT HEALTH

Curious about the microbiome, good vs. bad bugs, and what it all means for your body and mind? We've got answers.

1 MICROBIOME BASICS

The term "microbiome" sounds science-y, but it's simple: It's the trillions of tiny organisms (called microbes) that live in and on your body. The majority of these microbes are bacteria, and most call your gut home. There are

hundreds of different types living there, and bacterial diversity—or keeping the good and bad bugs in balance—is what helps maintain a healthy and happy gut. Everything from the food you eat to your day-to-day habits has an impact.

2 IT'S ABOUT MORE THAN YOUR BELLY

Your gut affects how the rest of you feels. When it's filled with good bacteria, things are more likely to be in order: Your immune system is strong, your digestion is good, and your skin glows. Too many bad bugs throw off the balance and may trigger brain fog and anxiety. Scientists are studying the gut's role in obesity, type 2 diabetes, heart disease, and some cancers; the link is unclear, but your gut houses some 5 million genes and 70% of your immune system.

3 THE HORMONE LINK

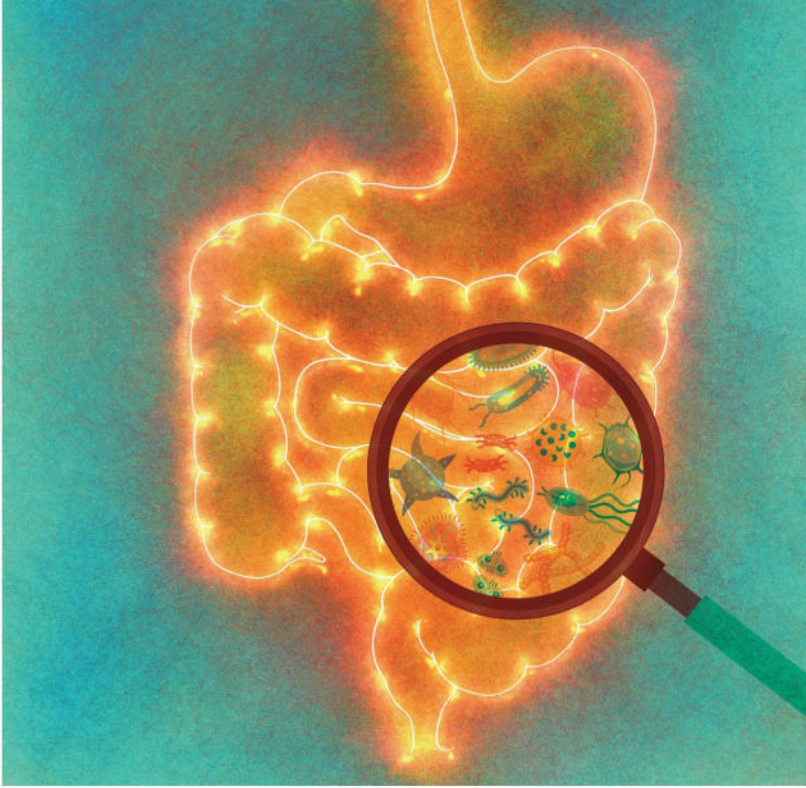
Hormones and your gut are interconnected. When your stomach grumbles, that's the hunger hormone ghrelin making an appearance; once you start noshing, another hormone, leptin, is secreted, signaling the brain when you're full. Gut bugs help produce brain chemicals such as serotonin (responsible for your good mood) and melatonin (the sleepy-time hormone). And though more research is needed, the female hormones estrogen and progesterone may help explain why women are about twice as likely as men to suffer from irritable bowel syndrome.

4 YOUR DIET MAY BE CAUSING YOU PAIN

A variety of foods can cause gut woes. There are the notorious gas-inducing ones, like broccoli and cabbage, but processed, sugary, and fatty foods can also be digestive doozies. "The standard Western diet, which is high in saturated fat and sugar and low in fiber, doesn't feed the good bacteria," says Lindsay Malone, a registered dietitian based in Cleveland. Those non-nutrients also promote constipation, which leaves waste material your body can't use sitting around inside you longer than necessary; over time, this can affect the lining of the digestive tract. Plus, sugar triggers inflammation, further disrupting the balance of good and bad bacteria.

5 COMMON GRIPES, EXPLAINED

Any way you spin it, digestive distress—cramps; nausea; being a little, ahem, "backed up"—is downright dismal. If you're constipated, dehydration may be the culprit, making you hold on to water in an attempt to rehydrate. But puffiness accompanied by cramps or other discomfort might mean you're a little gassy. Swallowing excess air by drinking through a straw can cause it, and whey protein and artificial sweeteners may also cause digestive issues like bloating and diarrhea. And then there's heartburn, caused by stomach acid backing up into your esophagus (the tube



that carries food from your mouth to your stomach), which can arise from consuming certain foods: citrus fruits; alcohol; and fried, fatty, or spicy items.

6 A GOOD-BELLY DIET

The key to a healthy and diverse microflora colony is a varied diet. Fiber is very important—it feeds good bacteria and keeps your digestive system running smoothly. One type of soluble fiber, inulin, is a prebiotic; prebiotics are the parts of foods that our GI systems can't digest well but the organisms in our guts can. Find them in bananas, asparagus, and leeks. You also need healthy fats and protein; your digestive tract is lined with muscle tissue, so those complex carbs and amino acids help keep it strong. And there are probiotics, a fancy term for beneficial bugs: Eating things that feed the good guys helps ensure that

you have enough of them. Fermented foods (sauerkraut, kombucha, kefir) naturally contain them, says Kirsten Tillisch, M.D., gastroenterologist at Ronald Reagan UCLA Medical Center.

7 PROBIOTIC PILLS

Most experts agree that it's usually best to get probiotics via food. "If you're healthy and feeling good already, don't mess with supplements," says Dr. Tillisch. They can be tricky, because everything from the storage temperature to the capsule coating to the strains they contain (and how much) is a factor. "It has to survive your stomach acid as it moves into the intestines, where it's used—otherwise it's just an expensive pill that doesn't do any good," Malone says. Plus, there's not enough good research to say they have any sort of benefit for healthy individuals. Supplements may,

however, help improve specific digestive symptoms, Dr. Tillisch says, particularly in people with irritable bowel syndrome.

8 HABITS FOR A HAPPY GUT

One more reason to exercise: It encourages the production of good bacteria, supports a healthy immune system, and promotes digestion. Getting enough sleep is also important. "There's a really strong gut-brain connection, and just like you need sleep for healthy cognitive functioning, you also need it to give your gut time to regenerate for the next day," says Malone. And try to get a handle on stress—it can wreak havoc on the balance of good and bad gut bugs. Habits to skip? Chewing sugar-free gum, with its hard-to-digest sugar alcohols, and smoking—among all its other problems, it appears to throw off the good bug-bad bug balance.

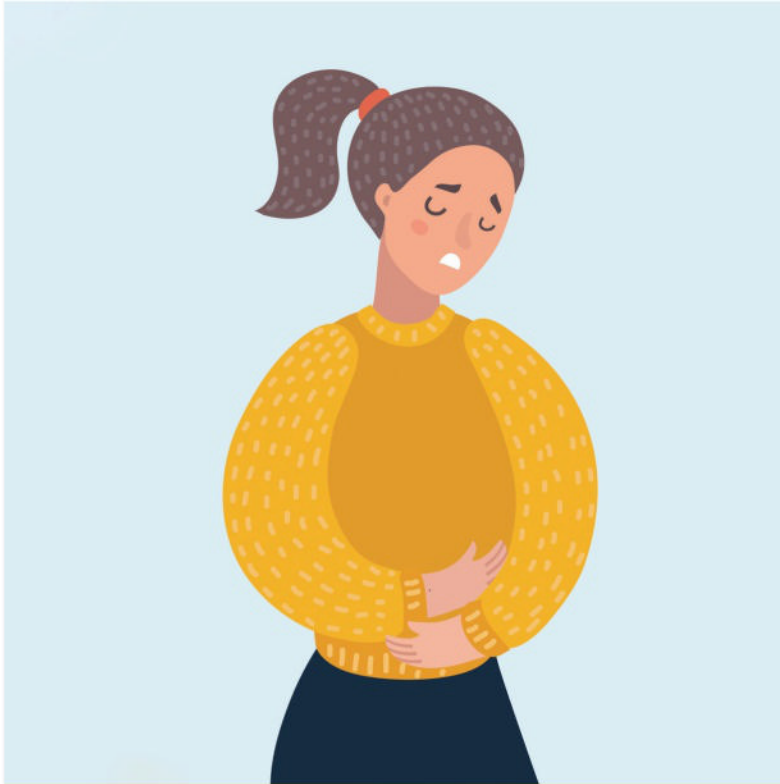
9 THE ANTIBIOTIC PROBLEM

These meds can wipe both bad and good bacteria from your body, making you work overtime to repopulate your healthy gut flora. While you need them to treat bacterial infections such as urinary tract infections, they're not useful for problems caused by a virus (like colds and respiratory infections). If you do need to take an antibiotic, be sure to load up on gut-friendly foods, particularly probiotic ones, to keep good bacteria levels up, says Malone.

10 BOTTOM LINE: LISTEN TO YOUR GUT

It can give big clues about your health. For example, a bloated feeling after a meal doesn't necessarily mean you've eaten too much; it can be a tipoff to a condition like Crohn's disease or celiac disease. Constipation or diarrhea can be a symptom of irritable bowel syndrome, anemia, or a vitamin B12 deficiency. Fluctuating insulin levels, common in people with diabetes and obesity, may be tied to less-diverse gut flora. And new abdominal pain or bloating that persists could be a sign of a gallbladder issue or pancreatic or ovarian cancer, says Roopa Vemulapalli, M.D., associate professor of internal medicine at UT Southwestern Medical Center in Dallas.

5 Causes of Digestive Drama



tract. The result can be constipation.

The fix: Move as much as possible, drink lots of water, and go easy on alcohol, which can be dehydrating. For symptoms, take 200 to 400 mg of magnesium citrate a day, says Vincent Pedre, M.D., author of *Happy Gut*. It attracts water to the colon, keeping things moving.

4 Antibiotics

Medicine you take to fend off an infection can leave your gut depleted of the “good” bacteria it once had, rendering you susceptible to “bad” bacteria creeping in, says South. This can lead to diarrhea.

The fix: Eat prebiotic (i.e., high-fiber) foods, which the healthy bacteria in your gut feed on; this can help them flourish. While many pop a probiotic supplement as soon as they get a Z-Pak, there’s not a ton of science to back up the idea that these help, says South.

5 Your Cycle

If you get diarrhea when you have your period, it’s no coincidence. Prostaglandin hormones can trigger muscular activity in your intestines, says ob-gyn Mary Jane Minkin, M.D.

The fix: If it’s a big problem, ask your doc about taking birth control pills, which prevent ovulation. You can also try ibuprofen, which blocks the production of more prostaglandins.

1 Your Mind

Know how your stomach can act up when you’re nervous? “Like a direct internet connection from your head to your gut, the vagus nerve runs from the brain through the abdomen,” says Shanti Eswaran, M.D., a clinical professor of gastroenterology at the University of Michigan. “So if something is going on in your head, that nerve is affected,” causing diarrhea or constipation. You may also feel more abdominal pain.

The fix: Do what lowers stress, like meditation or exercise; if emotions are a big cause of the problem, cognitive behavioral therapy or antidepressants can help.

2 Coffee

If your morning needs it, the stimulant acts in two ways—and quickly. It speeds up the GI tract overall, Eswaran says. But it also causes rectal hypersensitivity, leading to contractions and then to your hasty search for a restroom.

The fix: Time your coffee right, and know for some people, any very hot or very cold beverage can cause the contractions, she says.

3 Travel

Racing to get to the gate, new-to-you foods, not taking in enough liquids, a change in routine, and the sedentary nature of travel can slow down or speed up your GI



DID YOU KNOW?

When you eat, the food moves down your esophagus and into your stomach, which churns and mashes it into a smoothie-like mixture called chyme.

YOUR BODY ON FOOD

EYES

Behold, a gooey wedge of death by chocolate! When you visually take note of the texture, color, and shape, all of a sudden you want it, even if you weren't craving cake before.

MOUTH

The saliva pooling in there contains the enzyme amylase, which starts digesting the cake as soon as it makes it onto your tongue. The liquid also helps lubricate the food and mold it to slide into the pharynx (your throat).

ESOPHAGUS

Involuntary muscle contractions called peristalsis keep the food moving along. Then the sphincter at the bottom of your esophagus opens up to allow the food into your stomach.

PANCREAS + LIVER

The pancreas shoots juices containing enzymes to break down carbs, fat, and protein into the small intestine. The liver sends bile, via the gallbladder and bile ducts, to digest fat.



NOSE

Scent receptors register aroma, and this may lead you to begin to salivate.

EPIGLOTTIS

When you swallow, it covers your trachea, keeping food from going down the "wrong pipe" and toward your lungs. When all goes well, the food heads through the upper esophageal sphincter, a ring-shaped muscle, and then into the esophagus.

STOMACH

Welcome to the hydrochloric acid bathtub! Here, muscle contractions grind stuff up and ready it to travel to the small intestine. For most people, the majority of what has been eaten leaves the stomach within two hours.

SMALL INTESTINE

This 20-foot-long tubular organ is where the bulk of your body's nutrient absorption happens, via fingerlike projections (villi) that cover the coils along the inside.

LARGE INTESTINE

Also known as your colon and at least three feet long, it absorbs water from food, turning whatever's left into poop. It's also where trillions of (mostly good) bacteria help finish digestion and make certain vitamins.

RECTUM

The final stretch is where waste waits before being released. This area of the colon has a lot of nerves, which alert you when it's full and when you need to find a bathroom.



SPOTLIGHT ON

your stomach

When Bloat Happens

Why do some meals linger in your belly longer than others? Stomach enzymes break down different macronutrients at different rates so your system doesn't get overloaded. For example, fat takes longer to digest than carbs. If you're eating a bacon double cheeseburger, your stomach will release it into your intestines much more slowly than, say, a bowl of rice. High-fiber foods like fruits and veggies can take a while to move through as well. And then there's bloating: Many people lack the enzymes to digest sugars found in foods such as beans, Brussels sprouts, and milk, which means the sugar ferments in the colon and produces gas.

How to Know You're Satisfied

It takes a while after you've eaten for your brain to realize you're full. As you eat, the stomach gradually releases a hormone

called leptin, which tells the brain you've had enough. But we don't always listen to that signal, especially when we are snacking on something fatty, sugary, or salty—these foods activate the reward centers of our brains, so we don't want to stop. To avoid overindulging, take it slowly: Put your food or fork down in between bites so you can hear your body's "I've had enough for now" signals.

Hitting the Eject Button

No one likes to throw up, but this involuntary expulsion is your stomach's defense against infection. Viruses or bacteria from food poisoning make you nauseated, your esophagus relaxes, and your stomach muscles contract, heaving the food out your mouth. Gross, we know, but you'll probably feel better after your body is free of the toxin. If you're still vomiting after 24 hours or you have a fever, call your doc right away.



BY THE NUMBERS

32

OUNCES OF FOOD that your stomach has the capacity to hold at any given time

4-6

NUMBER OF HOURS it takes your body to digest a single meal

1.5

LITERS OF STOMACH ACID your body produces in a day

HERBAL
REMEDIES FOR...

ACID REFLUX

The terms “acid reflux” and “heartburn” are used interchangeably, but they’re not the same thing. Acid reflux occurs when stomach acid is regurgitated up into your esophagus, and you don’t feel it. But that reflux can lead to heartburn, that burning discomfort in the center of your chest as the acid irritates your esophagus.

GET HELP FROM GINGER

Ginger is the most helpful herb for heartburn, according to Daniel B. Mowrey, Ph.D., author of *Scientific Validation of Herbal Medicine*. “I’ve seen it work often enough that I’m convinced,” he says. “We’re not sure how it works, but it seems to absorb the acid and has the secondary effect of calming the nerves.” Take it in capsules and increase the dosage as needed. You know you’ve taken enough, says Mowrey, when you start to taste ginger in your throat.



CALL THE DOC IF YOU HAVE...

UNEXPLAINED BLOATING OR PELVIC PAIN

In rare cases, this could signal ovarian cancer, especially if you feel full after eating very little. Bloating with frequent tummy pain and diarrhea might be due to an inflammatory bowel disease (IBD) such as ulcerative colitis.

BLOODY STOOLS

It may be a hemorrhoid, says South, but always bring this up with your M.D. Blood could be a sign of IBD or be caused by a growth or tumor.

PALE POOP

In general, your stool should have some green, yellow, or brown in it, says South. If it’s grayish or super light, there could be a liver problem or a bile duct blockage.

UNEXPLAINED WEIGHT LOSS

This could signify a range of things, including celiac disease, says Brigid Boland, M.D., an IBD expert at the University of California at San Diego. Other potential causes: Crohn’s disease, ulcerative colitis, or, rarely, cancer of the colon, pancreas, or gallbladder.

PAIN IN YOUR LEFT TUMMY

Severe discomfort with a fever could mean diverticulitis, an infection in the large intestine. You’ll be given antibiotics, says Boland, and then asked to start a diet rich in fiber.

A Doctor's Guide to a Healthy Gut

Here's how Jack Gilbert, Ph.D., cofounder of the American Gut Project, protects and strengthens his microbiome.



Eat lots of plants

Every week, I eat foods from at least 20 different plants. It sounds like a lot, but I pack a bunch into smoothies or salads. Plants aren't limited to fruits and vegetables. Beans, nuts, and whole grains count too—they just have to grow out of the ground. My research team and I came up with that number after questioning more than 15,000 people about

what they ate in a week; those who consumed foods from more than 20 plants had more microbial diversity and fewer bad bacteria. Variety may be important when it comes to how well your microbiome works.

Wash your body strategically

My rule of thumb is to wash my pits and privates with soap. The rest of our skin contains

good bacteria that get washed off with soap. I don't use antibacterial soaps—even during this pandemic—so as not to promote microbial resistance. I wash my hands with warm water and regular soap and use alcohol-based hand sanitizers when I'm out.

Don't stress about fermented foods

Not every expert does this, but I don't fill up on fermented foods, such as Greek yogurt, sauerkraut, and kombucha. While they do provide beneficial bacteria, I cover my bases by getting plant-based diversity in my diet. Besides, not everyone can tolerate dairy, craves kraut, or wants to drink expensive craft kombucha.

Put your hands in the dirt

A little dirt is believed to help train kids' immune systems to resist harmful bacteria. I think that as adults, we can "educate" our systems by putting our hands in the ground. The microbes from the soil come in through the skin and the particles we breathe in. I love tinkering in my garden and picking avocados, oranges, and figs, which go right into my smoothies for the ultimate win.

FOOD FIXES

eat it up!

Better health with every meal



spice up your life

Who would expect the same spices that start a party in your mouth at mealtime to also be the fix for a wonky stomach?

A Penn Medicine study found that the chemical component capsaicin, often found in chili peppers, causes a reaction in your digestive tract that produces anandamide, which has been shown to act like an anti-inflammatory in your gut and calm inflammation from conditions like ulcerative colitis and Crohn's disease.

"The same reaction that calms down your gastrointestinal track may also keep it tumor-free," say the study authors. This doesn't mean you can go all-in on your favorite spicy foods like hot wings, since you still need to stick to a healthy diet. But it does mean that those who like some heat when it comes to their dishes will have one more thing to look forward to at mealtime.

keep it moving

Keep constipation at bay with the help of some tropical fruit. A Texas A&M University

study found that mangoes are an effective way to reduce intestinal distress and relieve constipation, thanks to a combination of polyphenols and fiber found in the fruit. Sounds like some sweet relief for the estimated 20% of Americans who suffer from the chronic condition.

pass the potatoes

After years of hearing how our beloved spuds aren't one of the healthy vegetables, now we know this starchy staple can benefit your body. Not only are they a low-calorie source of vitamins and minerals, depending on how they are cooked, potatoes—when digested and converted into fatty acids like butyrate in the large intestine—can reduce inflammation in the colon and even reduce the risk of getting colon cancer, according to a review of studies.

Q&A

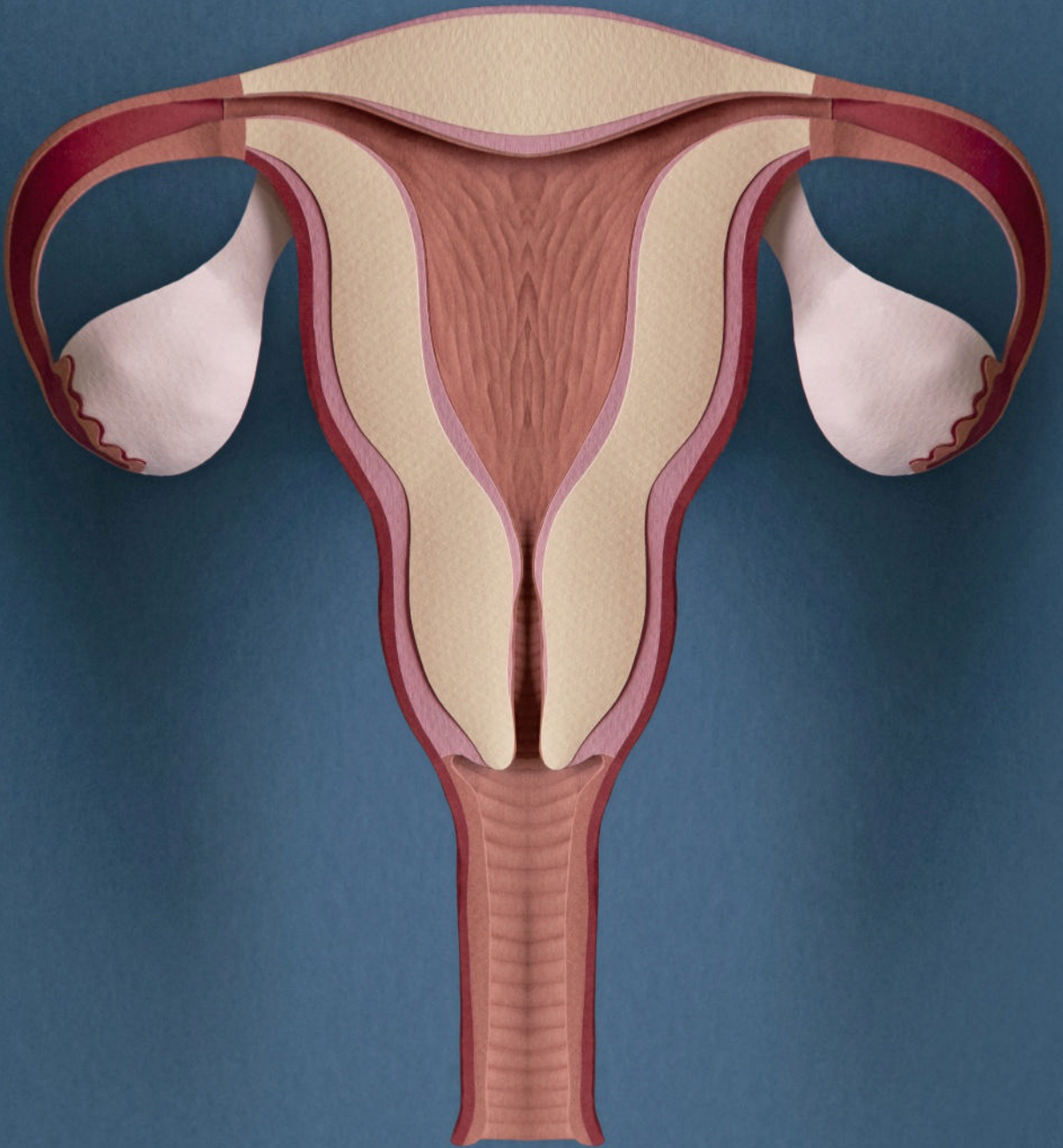
What makes my stomach growl?

It happens whether you're hungry or not. When food moves into the small intestine, the body releases enzymes that help break it down. There is also a series of muscular contractions that help move the food through the digestive tract, which is known as peristalsis. The enzymes and contractions can lead to the growling and rumbling sounds. Even if you haven't eaten in hours, peristalsis still happens, and the noises can recur every hour until you get some food in your stomach.



DID YOU KNOW?

It takes only two or three seconds for food to reach your stomach after you swallow your first bite. It takes much longer to feel full.



MEET

your

REPRODUCTIVE ORGANS

***y*OUR UTERUS IS THE MUSCULAR ORGAN USED TO NOURISH A GROWING BABY PRIOR TO BIRTH, AND YOUR OVARIES ARE A TEAM THAT PRODUCES THE EGGS NEEDED TO GET PREGNANT IN THE FIRST PLACE.** This duo can cause women some real trouble: bleeding every month, managing cramps and mood swings, sweating through hot flashes. But if your body is a temple, your reproductive organs—not to mention your breasts—are its undeniably female pillars: the body parts that should be taken care of through your child-bearing years and well beyond.

Love Your Lady Parts

Prioritizing healthy breasts is one of the best ways to start.

MAKING SENSE OF BREAST CANCER SCREENINGS

Confused about imaging tests? Step one: Talk to your doctor. If you have a family history of breast cancer or carry the BRCA gene, you'll likely need more frequent screenings. If your parent or sibling had or has breast cancer, it's best to be screened 10 years before the age of that person when diagnosed. Otherwise...

If you're in your 40s Some recommendations suggest starting mammograms at 40; others say to wait until 50. Make the choice with your doctor, discussing the fact that screening might spot a harmless irregularity

(called a false positive), which can lead to unnecessary procedures and anxiety.

If you're 50 or older

Women should get a mammogram every year or two until at least age 75. The chance of breast cancer increases with age, and the lifesaving benefits outweigh any risks during these years.

STEP 1 Ask the Density Question

Everyone's breasts, no matter their shape or size, contain a combination of tissue. Some of it's fatty (that's actually good when it comes to mammograms), and the rest is fibrous and glandular tissue. The less fat you have there, the denser your breasts are. The trouble with dense breasts is that they raise your risk of cancer—and they make it harder for doctors to catch problems on a standard mammogram.

Dense tissue appears white on X-rays—and

so does cancer. "It's like finding a snowball in a snowstorm," says Kathy Schilling, M.D., medical director of Christine E. Lynn Women's Health & Wellness Institute at Boca Raton Regional Hospital. Dense breasts are actually very common—some estimates show about half of women under the age of 50 and about a third of women older than that have them. (See p. 66 for more info about where you fall on the density scale.)

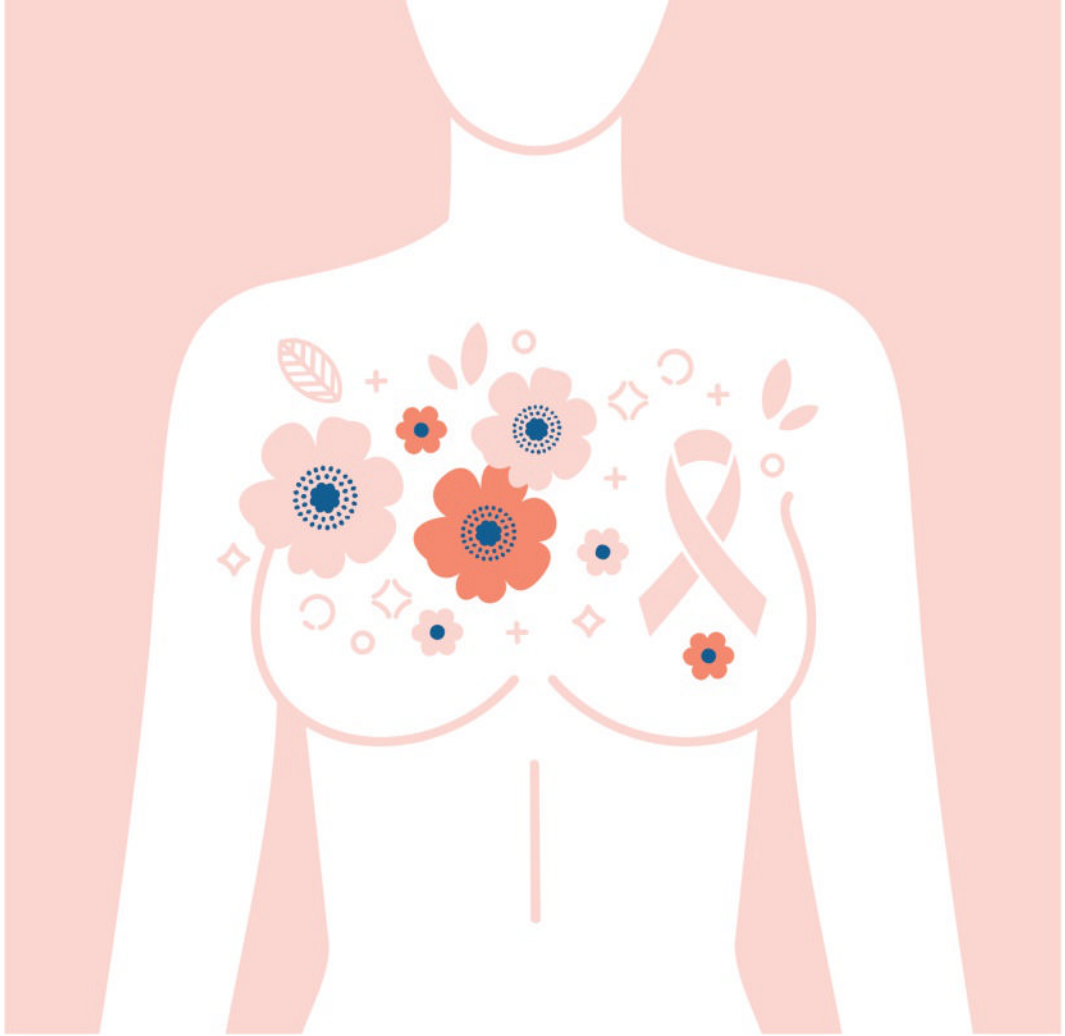
STEP 2 Add Up Risk

If you have one or more close relatives with breast or ovarian cancer, then you and your doctor should do some calculations to figure out whether you need extra screening. You'll want to determine your lifetime risk of breast cancer, says the American Cancer Society (ACS). If it's above a certain level, the ACS recommends that you get an MRI along with a mammogram. (It also recommends one if you have a first-degree relative with the "breast cancer gene," which is the BRCA1 or BRCA2 mutation.) If your risk is a little bit below that and you have dense breasts, you may also need additional scans. So how do you figure out your risk? The best tools are scientific calculators that you go through with your doctor, rather than the short ones you can find online.) If you have a strong family history, consider a consult with a genetic counselor. "If your doctor isn't skilled in doing lifetime risk assessments, get a



DID YOU KNOW?

During pregnancy, each breast grows three quarters of a pound in preparation for feeding the new baby.



referral to someone who is," advises Debbie Saslow, Ph.D., of the American Cancer Society.

STEP 3 **Be Smart About the Tests You Get**

Your doctor should help walk you through the pros and cons of different tests. Whichever ones you decide to get, you should know more about them to make the process less stressful.

Ultrasound

Uses sound waves to produce an image of the breast. (It's the same technology used for sonograms.)

Who should get it: It's not always a must-do for women with dense breasts. It may be best for those with dense breasts and other risk

factors. (U.S. breast cancer organizations haven't put out guidelines yet.) It finds slightly more cancers (4.2 more cases per 1,000 women screened) in women with dense breasts when combined with mammography than mammograms do on their own.

Be prepared:

It's associated with a lot of false positives, which can make it more likely you'll be sent for a biopsy.

What to keep in mind:

Four out of five women who get biopsies find out they don't have cancer.

Breast MRI

Magnets and radio waves create detailed images of "slices" of the breast.

Who should get it:

According to the ACS, women who have a high lifetime risk based on

family history, have a BRCA gene mutation or a first-degree family member who has it, received chest radiation therapy before age 30, or have certain rare genetic conditions. Some radiologists routinely use it in women with very dense breasts.

Be prepared:

It's more sensitive than mammograms and ultrasounds, but it's also pricey and a bigger hassle: You're face-down in the machine's tube for up to an hour. It turns up more false positives than mammography.

3-D Mammography

A new type of X-ray that captures many images of the breast and combines them into a 3-D picture, which helps catch more cancers.

Who should get it:

If a center offers it and insurance pays, some doctors think everyone should get it, especially those who have dense breasts.

Be prepared:

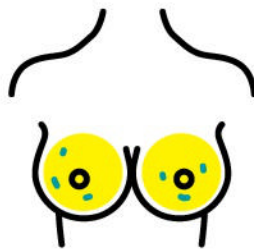
Some doctors think these mammograms are so much better at reducing unnecessary follow-up scans and biopsies that they could replace traditional mammography in the future, but that's still pretty far off. More and more centers are offering 3-D mammograms, but you still might need to travel to find a place that does them. And if your insurance doesn't pay for this particular technology (many don't), you could be on the hook for \$200 or more.

a closer look at BREAST DENSITY

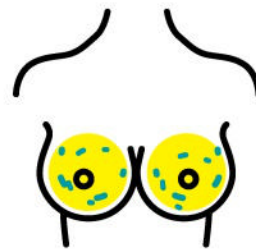


How do I know how dense my breasts are?

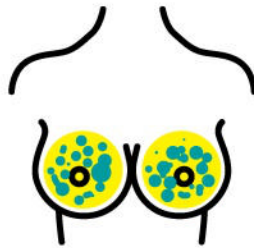
If you look at a scan, you can see why it's harder to spot a cancer (which appears white) in a breast with lots of dense tissue (which also appears white). The radiologist reading your mammogram is the one who will determine which category you're in (see the categories at right). Breast density isn't something your doc can figure out just by doing a manual exam. It might change through the years; most women's breasts become more fatty as they get older. Though having dense breasts can increase your risk of breast cancer, keep it in perspective—that might take your risk from a 1% chance of developing cancer to a 2% chance.



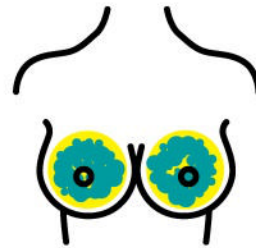
Not Dense
Almost entirely fatty
(10% of women)



Heterogeneously Dense
(40% of women)



Scattered Fibroglandular Density
(40% of women)



Extremely Dense
(10% of women)

12 PERCENT THE NUMBER OF WOMEN WHO WILL DEVELOP BREAST CANCER OVER THEIR LIFETIME



SPOTLIGHT ON

your breasts

What's in There, Anyway?

No two pairs are identical, but all breasts are made up of the same structures: fat, milk-making glandular tissue (which includes the lobules and ducts), and connective tissue. It's normal for breasts to have a lumpy consistency, but tell your doctor if you notice something that feels different from the rest of the area. (Imagine a hard, out-of-place rock in a bag of frozen peas.)

Ah, Relief

Achy boobs? Stay calm—most breast pain isn't a sign of something serious. Your hormones are often to blame: Two weeks before menstruation, fluctuating levels of estrogen and progesterone can cause water retention. Breasts balloon, and the extra volume may lead to tenderness, perhaps because nerves in the area are compressed, says Mark David Pearlman, M.D., a professor of obstetrics and gynecology at the

University of Michigan. Try taking ibuprofen or applying warm or cold compresses. But if chest pain is localized to a single spot or is sudden and sharp, get it checked out by your doctor.

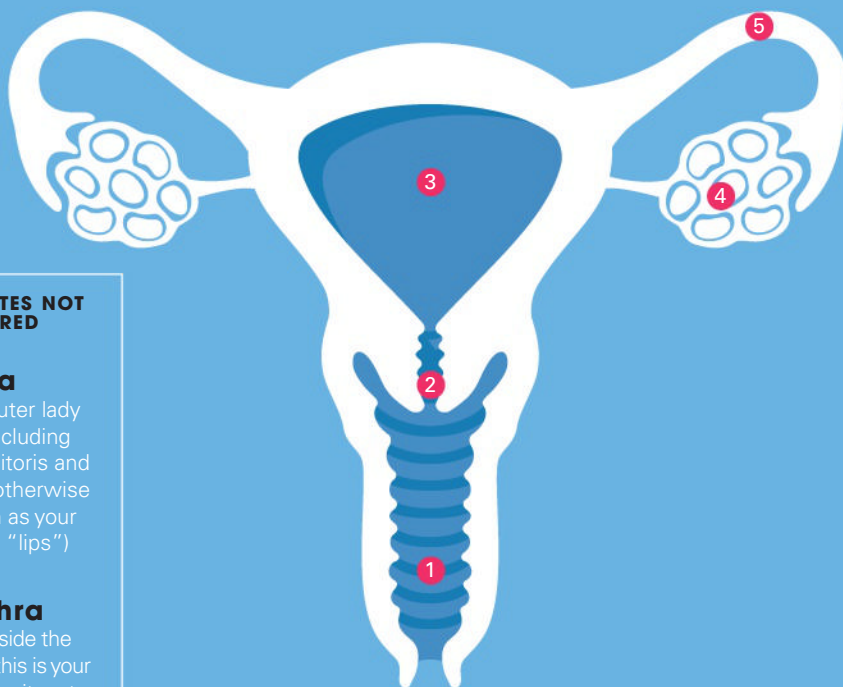
Your Anti-Sag Plan

As you age, the ligaments that tether the breasts to the chest wall may stretch. Also, most women's breasts get heavier, which sends them south. And surprisingly, exercise could actually make sagging worse. Some research suggests that when we run, jump, or even walk briskly, breasts don't just bounce up and down, but swing in a figure-eight pattern, which may further damage the ligaments. That's no excuse to become a couch potato, since staying active may help ward off breast cancer. Just choose a well-fitting sports bra that has a separate cup for each breast—these have been shown to reduce movement better than “uniboob” compression types.



DID YOU KNOW?

You're born with ovaries that contain 1 to 2 million eggs. By puberty, that number dwindles to 300,000, and at menopause you're left with none.



PRIVATES NOT PICTURED

vulva

Your outer lady bits, including your clitoris and labia (otherwise known as your genital “lips”)

urethra

Also inside the vulva, this is your body’s exit route for urine

EDUCATE YOURSELF

anatomy 101

Not sure which parts go where and do what? Consider this your sex-ed refresher.

1 vagina

It’s the guardian of your reproductive parts: Its acid balance keeps harmful bacteria at bay. But it can also be extremely accommodating: Shaped like a three- to four-inch-long tube sock, it can expand lengthwise (up to six inches) and widthwise (up to five inches) during sex or childbirth. Two vagina no-nos? Douching and eating lots of sugar, which can wipe out friendly bacteria and cause yeast overgrowth.

2 cervix

The doorway between your uterus and vagina, this smooth, springy organ softens as estrogen surges. When you’re carrying a baby, your cervix supports—quite literally—pregnancy, so keeping it strong is crucial. Compounds in the spice curcumin, as well as ellagic acid found in raspberries and walnuts, can all stall cervical cancer. Smoking, on the other hand, is murder on your cervix.

3 uterus

The fist-size, muscle-lined pouch makes a cozy home for your mini-me during pregnancy (it’s also where menstrual cramps come from). Excess pounds and gastrointestinal problems like constipation can put pressure on the uterus, so make your best effort stay at a healthy weight and eat foods that contain fiber. Flavonoids in foods such as broccoli, cabbage, and peppers may help prevent uterine cancer too.

4 ovaries

Men have testes, and women are born with this almond-size pair. When you are born, your ovaries can house more than a million eggs, more than half of which will be reabsorbed before you reach puberty. Your ovaries work with the eggs that are left, unleashing as many as 400 total ova over your lifetime. Keep your egg supply healthy with foods that are rich in beta carotene (carrots, grapefruits) and green tea.

5 fallopian tubes

Lined with hairs the size of eyelashes, these eight- to 12-centimeter-long highways connect your ovaries and uterus. It’s here that sperm and egg typically collide. Once fertilized, an embryo takes about six days to travel to the uterus—if, that is, your tubes are well oiled. Certain STI’s can lead to blockages or infertility. Studies show acupuncture could help unclog things.

Gyno Visit Know-How



While a pelvic exam is a very routine exam for ob-gyn Lauren Streicher, M.D., it's anything but routine for her patients. "You can quit worrying about whether you're waxed or got a pedicure," she says. "As a gynecologist, my only expectation is basic hygiene—a shower or bath during the previous 24 hours is appreciated." Here are her three other truths for women when they're sitting in the stirrups.



TRUTH #1
You can be examined even if you're bleeding.

You scheduled your annual gynecologic exam four months in advance and told your boss you needed the morning off—but now your period has arrived three days early. Do you need to reschedule? In general, no. A Pap test can be done unless bleeding is really heavy. The use of lubricant prior to a Pap is actually a much more common reason for

an unsatisfactory result. And if your bleeding is unscheduled or abnormal, it's beneficial for your gynecologist to be able to see where it's coming from. There are exceptions, but if in doubt, ask; Don't assume you have to cancel.



TRUTH #2
Getting weighed is not required.

Some women prefer not to be weighed because they don't want to get lectured—and they might skip a doctor visit just

to avoid feeling body shame. But a doctor's appointment isn't the same thing as joining the Army; no one is going to force you to do anything. An accurate weight is valuable for ID'ing medical problems, but it's much better to come and skip the weigh-in than not to come at all. Your best bet for avoiding a discussion about your weight? Start with "I know I need to lose weight, but since we have a limited amount of time, I'd prefer to talk about my other health concerns today." Then whip out your list and go for it. If a patient declines to be weighed, I'll ask for a ballpark figure. Reasons we will need your weight: Pregnancy, certain medications, and surgery require an accurate weight.



TRUTH #3
You need a pelvic exam even when it's not a Pap test year.

Women across the country celebrated when it was decided that a Pap test was no longer required every year (for low-risk women), which made it seem that they could skip the annual visit to the gynecologist. I hate to burst your balloon, but a Pap test screens only for cervical cancer. It's not a screen for uterine, ovarian, vulvar, or vaginal cancer or for incontinence, fibroids, sexually transmitted infections, pelvic organ prolapse, hormonal changes, or ovarian cysts. A Pap test does not screen for sexual problems or provide contraception. In other words, if you are the proud owner of a vagina, vulva, cervix, uterus, or ovaries, you benefit from a gynecologic exam every year even if you don't need a Pap test.

Five Ways to Get Relief From PMS



Think of it as biological warfare, their battles played out on the fields of a woman's body and mind. Once a month, about two weeks before she begins to menstruate, the opposing armies—estrogen and progesterone—begin to amass. These female hormones, which regulate the menstrual cycle and affect a woman's central nervous system, normally work in tandem. It's only when one of them tries to outdo the other that trouble looms. Some women escape the conflict altogether, their hormones striking a peaceful balance. Others are less fortunate. Though they take many shapes and sizes, the more than 150 symptoms that can occur during this period are categorized as premenstrual syndrome, or PMS. Here are ways to fight back.

1 EXERCISE

Many experts agree that exercise may be your best PMS prescription. "Not only does it help reduce the negative effects of any emotional stress, but it also boosts the levels of mood-elevating endorphins, helps regulate fluctuating blood sugar levels, controls appetite, and prevents weight gain," says Rallie McAllister, M.D., a board-certified family physician in Kingsport, TN. The type of exercise you choose really isn't that critical, adds McAllister. The key is to get yourself

moving, ideally at least 30 minutes a day, most days of the week."

2 TRACK YOUR SYMPTOMS

Step one is realizing and accepting the fact that you actually have PMS. And Susan G. Kornstein, M.D., a professor of psychiatry and obstetrics-gynecology and executive director of the Institute for Women's Health at Virginia Commonwealth University in Richmond, says that the easiest way for a woman to do that is to "chart her symptoms daily over two menstrual cycles to confirm that she has PMS. If

she can learn the exact pattern of her particular symptoms, she can try to plan around them."

3 AVOID EMPTY CALORIES

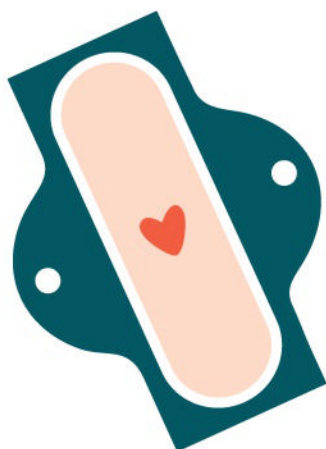
Many women crave sweets while fighting PMS, but McAllister says these simple carbohydrates start a vicious cycle. "Sugar cravings lead to eating highly refined carbohydrates, which leads to a rapid spike in your blood glucose level. This leads to overstimulation of the pancreas and a release of insulin, which drives blood sugar levels to below normal, which results in feelings of hunger, fatigue, irritability, and cravings for more sugar. Ultimately, this ends in weight gain," she says.

4 FILL UP ON FIBER

Luckily, there's an easy way to break this cycle, adds McAllister. Just substitute whole grains and complex carbohydrates with plenty of fiber, found in vegetables, beans, and whole grain bread, in place of nutritionally empty foods. "When women satisfy their carb cravings with complex carbohydrates that are high in fiber, like a bran muffin with a small handful of nuts, they can satisfy their cravings without triggering the destructive cycle," she says.

5 CUT THE CAFFEINE HABIT

You may want to cut back a bit on the morning coffee while experiencing PMS symptoms, says McAllister. "Caffeine can stimulate the adrenal glands and trigger the production and release of stress hormones, making PMS symptoms worse."



So Long, Monthly Misery

Use these tricks to deal with—
and in some cases permanently get
rid of—painful symptoms.



Menstrual Migraine

It's from a hormonal imbalance, says Paula Hillard, M.D., an ob-gyn professor at Stanford University. To help, drink water, don't skip meals, and ask your doc about magnesium or a hormonal treatment.



Bloating

Avoid cruciferous veggies like broccoli and cauliflower, which are high in fiber and can cause the gas that's inflating you, Hillard says. Also pass on foods heavy in salt, which causes your body to hoard fluids.



Bleeding Gums

Seeing red in places other than down below? Experts believe progesterone in the second half of your cycle may be to blame. Still brush (gently!), and apply a cold compress externally to ease pain.



Acne

Here's a secret: Add flax seeds and cilantro to your meals for a week—on top of salads, in smoothies, or tucked into a sandwich. They flush acne-causing estrogen from your system.



Sore Boobs

Add a cup of Epsom salts to a bath and float on your back. The feeling of weightlessness soothes achiness. Also, try to cut out caffeine—it ups the formation of fluid-filled cysts, which can lead to sensitivity.



Cramps

Eating foods rich in omega-3 fatty acids (avocados, salmon) can help make more hormones to relax the achy area. For a fast fix, heat up a hot-water bottle and press it against your stomach. It helps calm uterine muscles.

WHEN YOUR PERIOD DOESN'T COME

Reasons other than pregnancy can cause a period to go MIA.

Cycle Length

Your period may not come on the same date every month, says Lonna Gordon, M.D., an adolescent medicine specialist in Orlando. "It's normal to have anywhere from 21 to 35 days between periods," she says. "To figure out your schedule, download an app like Clue."

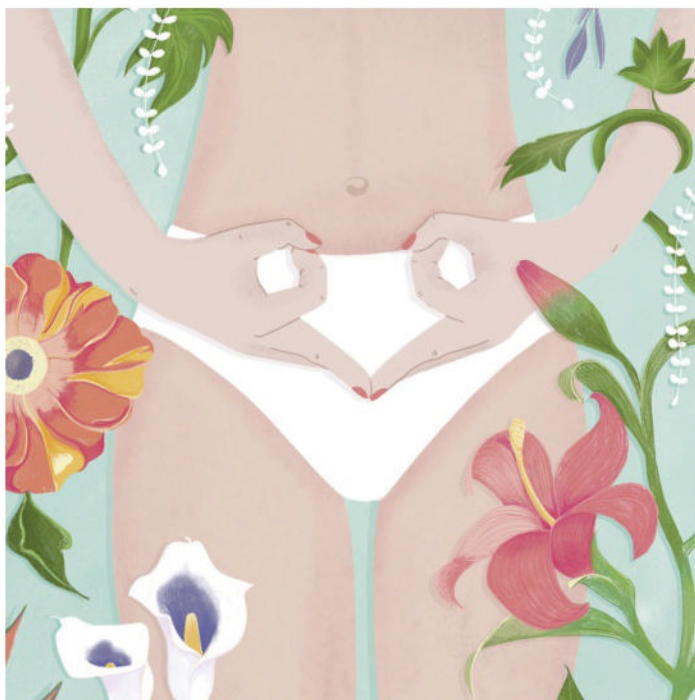
Stress

Financial problems, sick family members, and insomnia can interfere with your cycle. Stress hormones can disrupt that same signal your brain sends that it's time for your period, Gordon says.

Too Much Exercise

Gordon says a big change in your fitness routine may lead to no period. If you're burning calories and not getting enough nutrition, your body goes into survival mode and stops certain functions.

Figuring Out Fibroids



Every day hundreds of women are diagnosed with uterine fibroids, noncancerous growths that are the most common type of pelvic tumor in females: Up to 80% of reproductive-age women have them. Fortunately, you usually don't need to do anything about fibroids. But when is it time to take action? Here's the lowdown on the most important symptoms, as well as when you should consider treating them and when you definitely should talk to your doctor about different treatment options.

BLEEDING

A fibroid's location—not its size—is key to whether you'll have heavy bleeding during your period. A plum-size fibroid on the outside of the uterine wall is usually asymptomatic, but one the same size pushing into the uterine cavity can create a Niagara Falls-level flow.

Consider Taking Action

if menstrual bleeding is so heavy that you change your tampon more than every two hours and structure your calendar so social plans won't coincide with your period.

Definitely Take Action

if you're anemic as a result.

UNCOMFORTABLE PELVIC PRESSURE

Fibroids are often microscopic, but they can also grow to the size of a peach or even a beach ball.

Consider Taking Action

if you feel the need to urinate even when your bladder is empty, you can feel the fibroids by resting your hand on your belly, or strangers ask you when the baby is due.

Definitely Take Action

if your fibroids are causing urinary obstruction or are growing very rapidly, especially if you're past menopause.

PAIN

Fibroids often cause serious discomfort when some of their tissue dies off; severe cramps can also be brought on by heavy bleeding and the passage of clots.

Consider Taking Action

if the pain gets in the way of your daily life.

Definitely Take Action

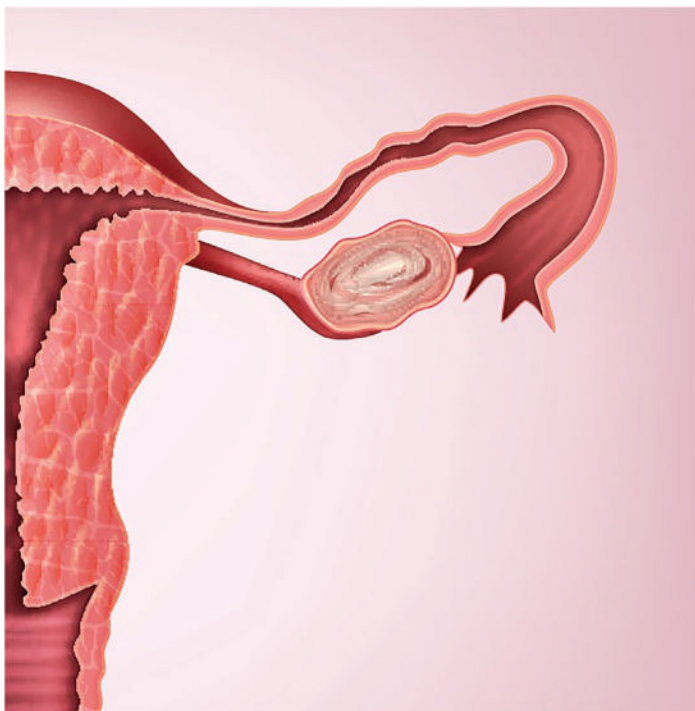
if there's so much pain that you can't function unless you take a narcotic.

INFERTILITY

Fibroids can potentially block a woman's fallopian tubes or prevent implantation, but it can be challenging to figure out whether an infertility issue is caused by fibroids or another factor (such as ovulatory dysfunction related to age).

Definitely Take Action

if you have fibroids and are planning to conceive. Consult a fertility expert to figure out a game plan.



SPOTLIGHT ON

your ovaries

What They Do

Sure, they house your microscopic eggs, but these fig-shaped sacs that lie on either side of the uterus also produce the hormones estrogen, progesterone, and testosterone. These go coursing through your body to keep your reproductive system healthy and contribute to bone, muscle, and brain development.

Keep Them Healthy

There are three easy ways to keep your ovaries in tiptop shape. First, get an annual pelvic exam, which can help your doctor catch issues like cysts and tumors that often don't cause symptoms. Also, don't smoke: Chemicals in cigarette smoke damage the genetic material eggs are made up of and cause them to die off faster; this can lower fertility or bring on menopause earlier. Finally, maintain a healthy weight—that

helps keep hormones, and thereby your period, regulated and can help ease PCOS symptoms (more on that next).

They Can Run Into Trouble

If a follicle doesn't rupture to release an egg, it can swell with fluid and develop into a cyst. Most cysts are small and painless, and you're unlikely to know you have one until you get a pelvic exam. They usually go away on their own and are rarely precursors to cancer. In some people, though, a cyst may cause abdominal pain, a feeling of belly fullness, and irregular periods. Polycystic ovary syndrome (PCOS) is another condition that can arise. Characterized by symptoms like acne, weight gain, irregular periods, and excess body-hair growth, it means your ovaries produce too much androgen hormone; this keeps follicles shut, spurring cysts to form.



DID YOU KNOW?

A woman's risk of getting ovarian cancer during her lifetime is about 1 in 78.



HERBAL
REMEDIES FOR...
HOT FLASHES

Perhaps the most common complaint about menopause revolves around the dreaded hot flashes. These waves of heat that start in the chest and spread to the neck and head leave women sweaty, hot, flushed, and irritable. Here's a tasty tip to help combat the problem.

TRY: Sage Iced Tea

Studies find that the popular herb sage can reduce the frequency of hot flashes. Steep a Tbsp of the herb—dried or fresh—in 8 oz of water for 5 to 10 minutes. Strain, chill, and drink.

—Danielle Miller,
naturopathic doctor, Seattle



**MENOPAUSE
BY THE
NUMBERS**

4

NUMBER OF YEARS you'll typically experience perimenopause, when the symptoms start as levels of estrogen in your body decline

28

PERCENTAGE RISK of developing depression during perimenopause and menopause for women, according to a study in the journal *Psychological Medicine*. For those who experienced depression before, the risk was 59%.

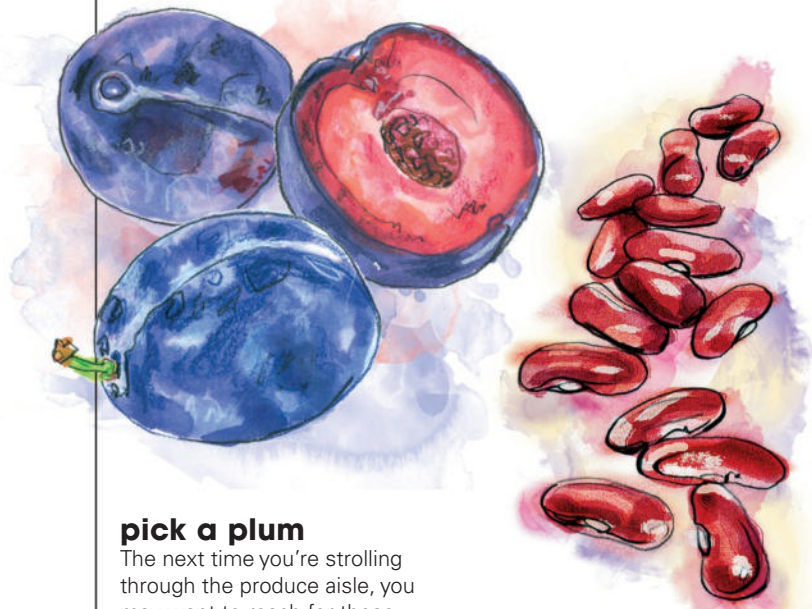
75

PERCENTAGE of women who experience hot flashes during menopause

FOOD FIXES

eat it up!

Better health with every meal



pick a plum

The next time you're strolling through the produce aisle, you may want to reach for these juicy summer stone fruits. In addition to containing vitamin K (which may have a protective effect against developing breast cancer), they are also a very good source of vitamin C, which some studies indicate may also lower a woman's risk of breast cancer. But a word of caution for those who've already been diagnosed with the disease: Research suggests that vitamin C may interfere with some treatments and decrease their effectiveness.

avoid bacterial vaginosis

Suffering through the symptoms of BV, an imbalance of bacteria in the vagina that can cause abnormal vaginal discharge, itching, or odor is no picnic. But the foods you eat can make you more or less likely to come down with the condition. A study of more than 1,500 women from the University of Alabama found that foods that are high in dietary fat are

associated with an increased risk of BV, while women with higher folate, vitamin A, and calcium intake may decrease their risk of severe BV.

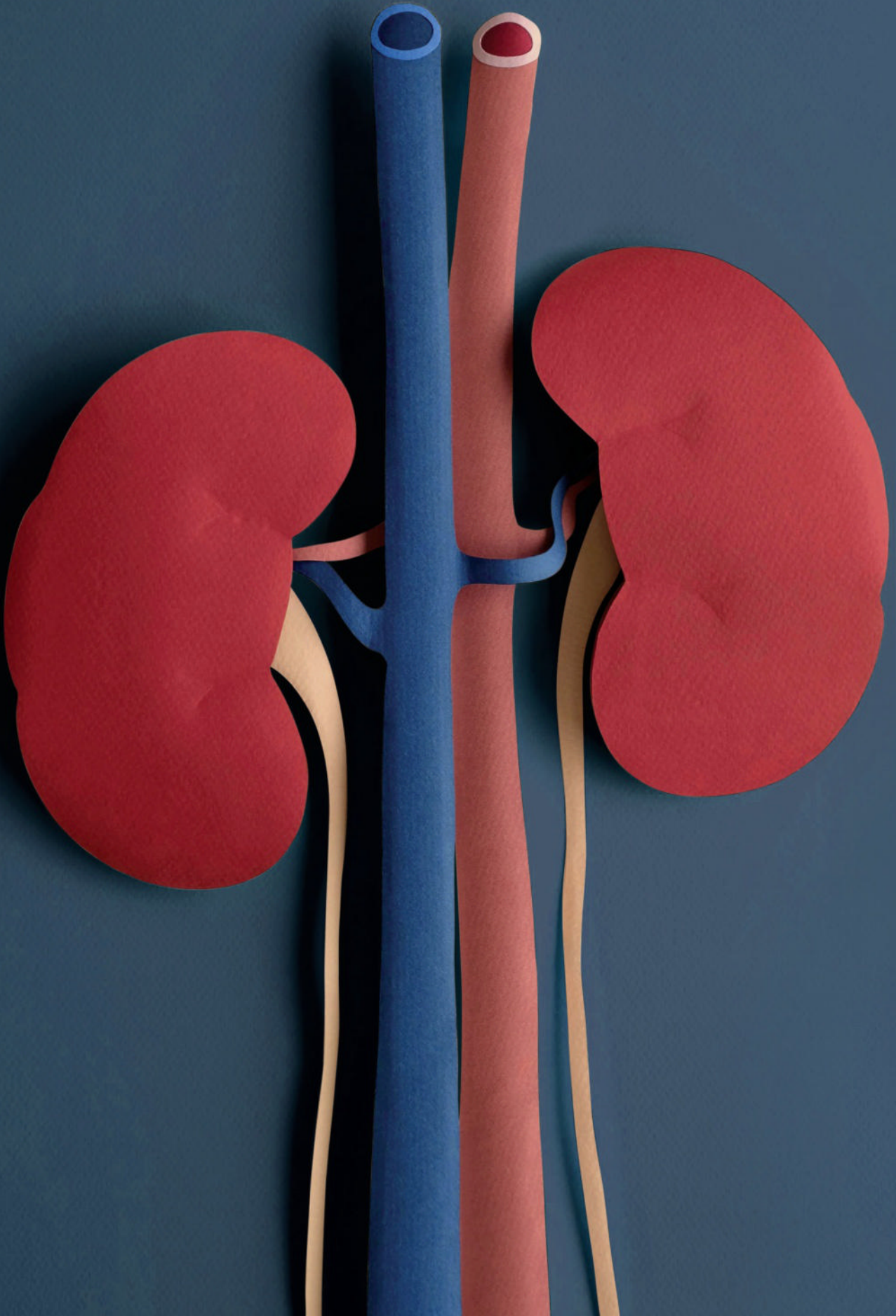
eat beans for endometriosis

To help fight the pain caused by endometriosis—a condition in which the lining of the uterus grows on the outside of the organ—it's helpful to consume a nutrient-dense, plant-based diet chock-full of vitamins and minerals. Beans are a rich source of fiber, which research shows can help lower estrogen levels, improving endometriosis symptoms. One review of studies in the journal *Reproductive Biomedicine Online* found that women who ate foods rich in fiber and omega-3 fatty acids had a protective effect from endometriosis that people who ate red meat, trans fats, and coffee did not have.



Managing Erratic Cycles

If you're used to your period coming like clockwork, it can be very frustrating when the train doesn't show up on time. If you start to notice that your cycle has become consistently out of whack, it's time to book an appointment with your ob-gyn. Menstrual irregularities should not be blown off, as they could signify potentially serious uterine health and fertility issues. For example, if you miss three or more periods in a row (and aren't perimenopausal, pregnant, or taking hormonal contraceptives), this may indicate a hormonal imbalance. If your period is abnormally heavy or achy or you have spotting, you could have fibroids (which are benign growths inside or outside the uterus), endometriosis (a condition in which the uterine lining grows outside the uterus), an abnormal buildup of tissue, or possibly uterine cancer. Even if you're steady Eddie and you never miss a month, be sure to keep up your yearly gyno check-ins so your doc will be able to detect early signs of any problem before it gets out of hand.



MEET

your

LIVER & KIDNEYS

***y*OUR LIVER IS A GLANDULAR ORGAN THAT FILTERS THE BLOOD THAT COMES FROM THE DIGESTIVE TRACT, AND THE KIDNEYS FILTER WASTE OUT OF THE BLOOD AND PASS IT OUT OF THE BODY AS URINE.** You may have heard less about the roles your liver and kidneys play in your body than those of some of your other organs, but both your liver and kidneys help naturally detoxify your body. Keeping them happy and healthy is easier and more effective than following any kind of total-body cleanse.

Detox Your Body Naturally

Here's what you should know about two of your major cleansing organs.

1 You don't even have to drink alcohol to harm your liver.

Booze gets all the bad publicity for damaging your liver, but it certainly is not the only substance you ingest that can cause you some trouble. Junky good-time foods (saturated fat, refined carbs, red meat), combined with any weight gain (well, hello there, "quarantine 15"), can lead to non-alcoholic fatty liver disease (NAFLD). This buildup of fat wreaks the same havoc on your liver that alcohol does, possibly leaving you with inflammation and scarring. Shockingly, NAFLD can develop in as little as six weeks if you really overdo it.

2 Your kidneys detox your blood.

As your blood passes through these two bean-

shaped organs, which sit toward the back of your abdomen, it is scrubbed of cellular waste products that could harm your body. They also put out hormones that control red blood cell production, vitamin D, and blood pressure. When they are unable to filter your blood (which can happen as you grow older or if you have some kind of an infection or other kidney damage) or fail to properly produce hormones, your blood pressure numbers can soar.

3 Your liver regenerates.

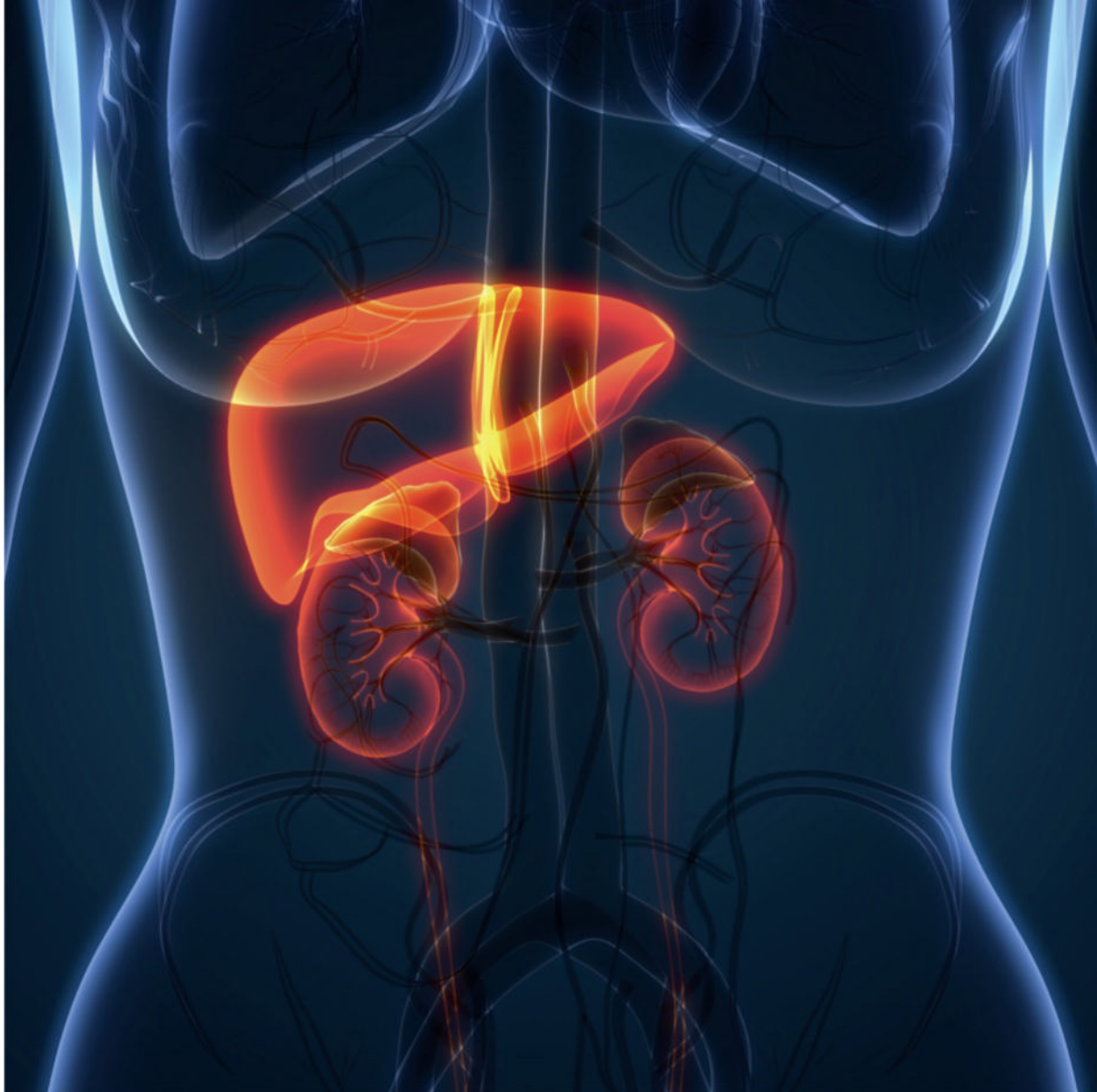
It's the only organ in the human body that has the capability to grow back. And the healing powers of your liver don't stop there either: A single month without booze tames inflammation, while losing 5% of your weight can reduce liver fat by 30%.

4 High blood pressure, obesity, and diabetes can cause serious kidney issues.

Every year after your 30th birthday, your

kidneys lose a little bit of their filtering power. "By itself, that almost never causes problems," says Donna Hanes, M.D., a clinical associate professor at the University of Maryland School of Medicine. But hypertension, extra weight, and blood sugar issues can impact their effectiveness. Here's how to avoid trouble:

- Keep your BP in a healthy range through exercise and a nutritious diet.
- Drink plenty of water to help flush out excess minerals that can create kidney stones.
- Don't smoke or drink a lot of alcohol. Smoking can slow blood flow, while alcohol dehydrates the body.
- Avoid long-term use of painkillers. After 10 days, aspirin and ibuprofen can limit blood flow to the kidneys and cause harm.
- Treat a urinary tract infection (UTI) right away. It could make its way up to the kidneys, creating scarring, and raise your risk for kidney disease.



5 Your liver cleanses itself.

You don't need an activated-charcoal smoothie or a beet-juice detox cleanse to do it. Your liver naturally gets itself back in working order if you move the heck out of its way. A month or so without alcohol can reduce the fat storage in the liver. You can undo some of the fat that causes NAFLD by cleaning up your diet and reducing portion sizes: Losing 5% of your weight can reduce fat in your liver by up to 30%.

6 It also stores nutrients.

This three-pound food processor takes the carbs, protein, fat, vitamins, and minerals your small intestine is done digesting and packages them into forms your body can use (such as glycogen—fuel for your muscles—and triglycerides, which are fatty acids). It also stores nutrients, hanging on to what you don't use right away so you can dip in later when you're running on empty. Plus, it filters out any irritants you accidentally ingest and sends your body's waste

to your large intestine to be eliminated.

7 Cirrhosis is deadly.

Cirrhosis occurs when your liver is permanently injured and scarred from long-term damage due to alcohol abuse, hepatitis, or obesity. And once your liver doesn't function properly, the rest of your body begins to fail, too. Although cases vary, typically cirrhosis occurs after 10 years of heavy drinking. Damage cannot be reversed, but abstaining from alcohol can prevent additional impairment.



DID YOU KNOW?

Remove as much as 75% of your liver, and it can grow back to its normal size in just a few weeks.



Can eating too much protein hurt my kidneys?

High-protein fad diets are all the rage for weight loss, but there's a serious drawback to them: Research suggests that a super-high protein diet can boost your risk of developing kidney disease or stones. This isn't the first time researchers have found fault with high-protein plans. There's been a rise in the incidence of kidney stones—and the American Academy of Family Medicine released a statement linking this to the popularity of diets high in animal protein, says Janet Brill, Ph.D., R.D., a Philadelphia-based nutritionist. Animal protein produces an acidic environment in the body, increasing the formation of kidney stones and leeching calcium from bones, says Brill. "Plant proteins don't have the same effect," she says. So eat lots of fruits and vegetables because they're high in potassium (and the nutrient can help protect against kidney stones).



TEST YOUR DRINK KNOWLEDGE

Are you reaching for the bottle without knowing anything about alcohol? Score yourself 10 for every right answer.

1 The maximum recommended alcohol consumption per week is 7 drinks a week for women and 14 for men. What does a serving actually look like?

- A** 3 x 175 ml glasses of wine
- B** 6 x 175 ml glasses of wine
- C** 10 x 175 ml glasses of wine

ANSWER: (A) Three glasses of 13% wine tallies up to seven units. But spread these out: Never drink all your units in one sitting.

2 Heavy drinking can damage organs besides your liver...

- A** True
- B** False

ANSWER: (A) Heavy drinking for a long time can shrink the brain, which can cause problems with your memory, sleep, and mood. Cutting down could help reverse, or prevent, some of the damage.

3 Do you know what a serving of alcohol looks like?

Get hold of a glass or cup and, with water, pour yourself a measure as if you were fixing your favorite drink at home. Now pour the water into a measuring jug.

ANSWER: How do your measurements compare with actual ones? Give yourself 10 points if you've successfully measured 25 ml for a single spirit or 125 ml for a glass of wine.

4 How many drinks does a woman need to drink a week to be a "heavy" drinker?

- A** 8
- B** 14
- C** 18
- D** 21

ANSWER: (A) Knocking back more than three drinks in a day, or more than eight in a week, means you're a heavy drinker. Men can consume a bit more, but that's generally because they weigh more. Being able to distinguish "moderate" from "heavy" drinking is the first step to understanding whether you have your drinking habits under control. To cut down, make sure you have several drink-free days each week.

How did you score?

30–40 Well done! You have a good basic knowledge of booze.

20–30 Surprised by the answers? It might be time to think about what you drink.

0–10 It's time to get more alcohol aware.

YOUR LIVER ON ALCOHOL

Who doesn't love a celebratory drink from time to time?
But be careful not to overindulge.

1 THE FIRST SIP OF BOOZE . . .

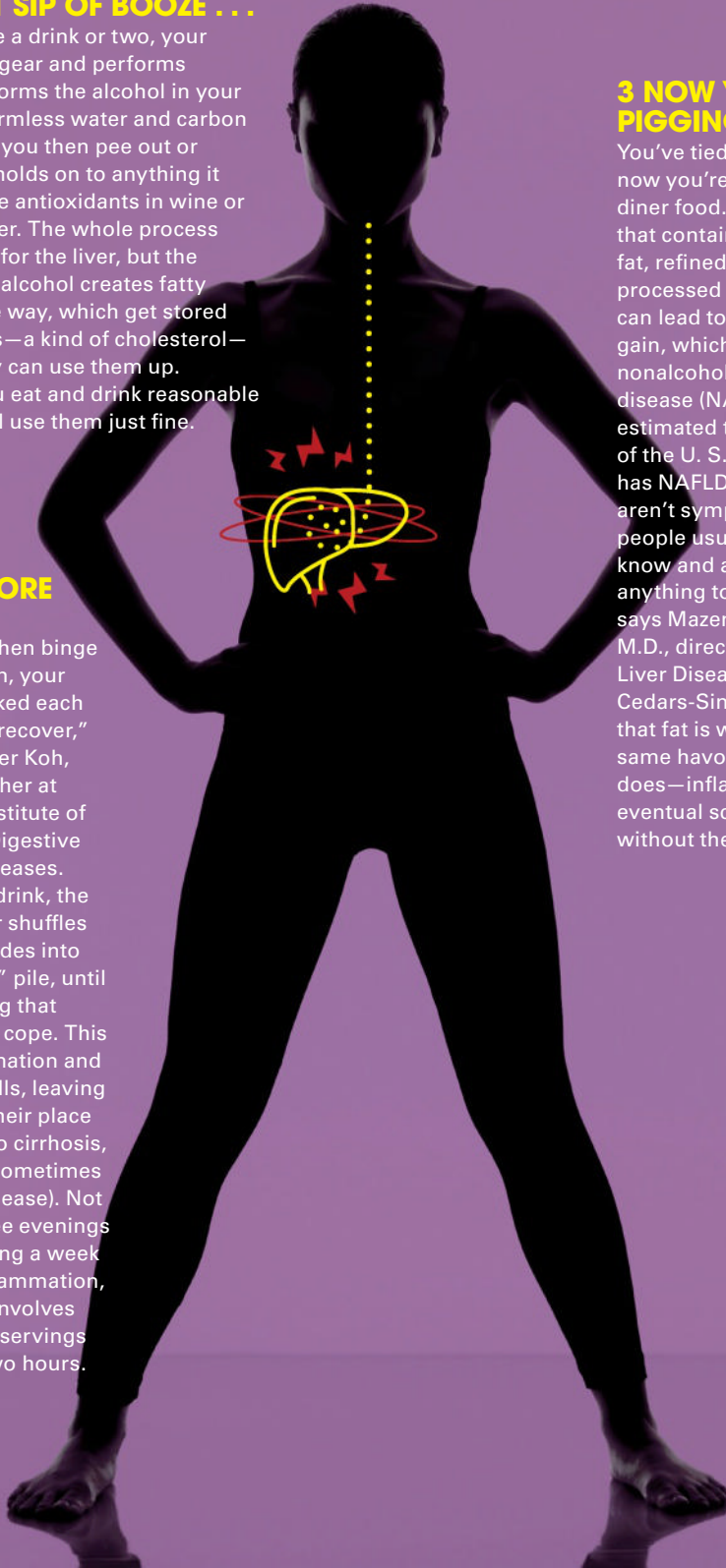
When you have a drink or two, your liver kicks into gear and performs triage: It transforms the alcohol in your martini into harmless water and carbon dioxide, which you then pee out or exhale. It also holds on to anything it can use, like the antioxidants in wine or the carbs in beer. The whole process is a no-brainer for the liver, but the metabolism of alcohol creates fatty acids along the way, which get stored as triglycerides—a kind of cholesterol—until your body can use them up. Typically, if you eat and drink reasonable amounts, it will use them just fine.

2 A FEW MORE DRINKS. . .

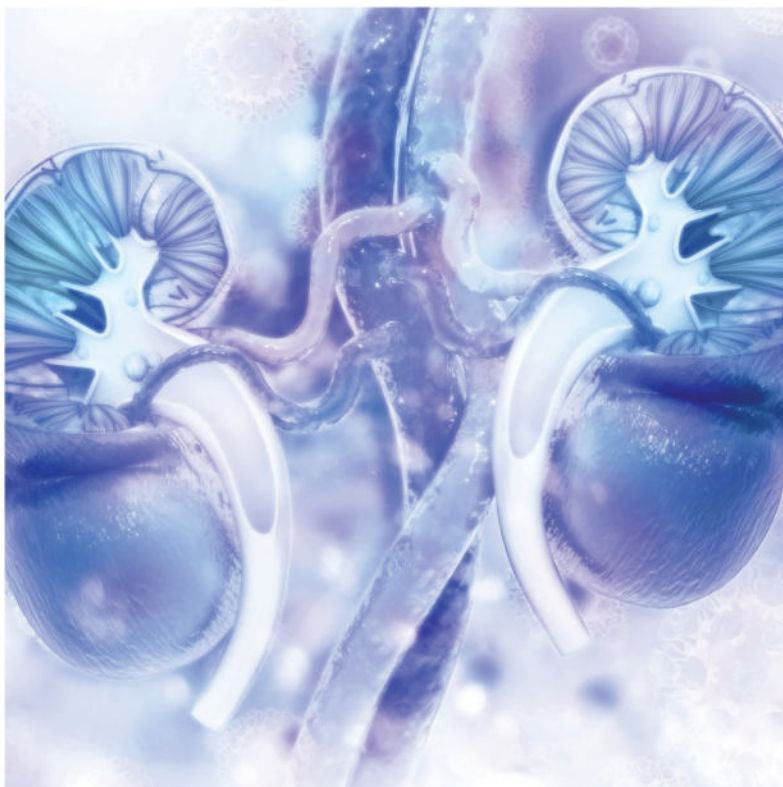
"If you binge, then binge again and again, your liver gets shocked each time and can't recover," says Christopher Koh, M.D., a researcher at the National Institute of Diabetes and Digestive and Kidney Diseases. The more you drink, the more your liver shuffles those triglycerides into the "burn later" pile, until the pile is so big that your liver can't cope. This causes inflammation and kills off liver cells, leaving scar tissue in their place (and can lead to cirrhosis, a chronic and sometimes deadly liver disease). Not good. Just three evenings of heavy drinking a week can initiate inflammation, if each outing involves more than five servings of alcohol in two hours.

3 NOW YOU'RE PIGGING OUT

You've tied one on, and now you're craving diner food. But foods that contain saturated fat, refined carbs, or processed red meat can lead to weight gain, which can lead to nonalcoholic fatty liver disease (NAFLD). "It's estimated that up to 30% of the U. S. population has NAFLD, and there aren't symptoms, so people usually don't know and aren't doing anything to reverse it," says Mazen Nouredin, M.D., director of the Fatty Liver Disease Program at Cedars-Sinai. Meanwhile, that fat is wreaking the same havoc alcohol does—inflammation and eventual scarring—but without the libations.



The 411 on Kidney Disease



most susceptible. Being over 60 is also a risk factor, as kidney function declines with age.

How to Detect it

Monitor your urinary tract infections.

If you've ever had a UTI, you know the symptoms that come with it: a burning sensation when you pee, and the need to go all the time. While kidney infections are rare in otherwise healthy people, most do start off as a UTI. "As soon as you start having other symptoms [besides burning, frequency, and urgency], that's when you worry it might be moving beyond the bladder," says Staci Leisman, M.D., internist and nephrologist at Mount Sinai Hospital.

Pay attention to back, side, or groin pain.

Your kidneys are located deep against the back muscles in your upper abdominal area, so it's common to experience pain in that region. "If I'm examining you, I'm going to first tap you on the back where your kidneys are and people with a kidney infection will likely jump right off the table from the pain," says Leisman. "That's because your kidneys are in a capsule where there's not a lot of space, so if it gets inflamed at all, it's incredibly painful."

It's not something we read about a lot, but chronic kidney disease affects an estimated 37 million people in the United States. And what's really surprising: As many as 90% of people with the condition don't even realize that they have it. Find out more about what it does, if you're susceptible, and how you can avoid this potentially deadly disease.

What It Is

The kidneys filter blood to produce urine, regulate blood pressure, and help make red blood cells.

Disease in these organs affects the body's ability to filter impurities and excess water from the blood. Uncontrolled kidney disease can lead to

heart problems, anemia, and bone weakness—and can ultimately cause kidney failure.

Who Is Most at Risk

People with diabetes, high blood pressure, and a family history of the disease are the ones



SMART STRATEGIES TO PREVENT KIDNEY STONES

Passing a kidney stone is an incredibly painful experience best avoided. Here's how they develop and how to help prevent them.

Drink plenty of water.

Staying hydrated is great for your body in so many different ways—including avoiding kidney stones. These hard deposits are typically made up of calcium, oxalate, and other minerals that are absorbed from food and excreted through your urine. When urine gets too concentrated because you are dehydrated, those minerals can crystallize to form these painful pebbles. Make a point to drink six to eight 8-ounce glasses of water every day to help keep your urine diluted.

Get moving.

Light exercise can cut your risk by more than 33%, according to a study in the *Journal of the American Society of Nephrology*. Three hours a week spent walking or one

hour jogging changes how your body handles dietary minerals in ways that lower your chances of developing a stone.

Amp up your calcium intake.

Because kidney stones usually form from calcium, doctors used to think that avoiding this mineral could prevent them. Now they know dietary calcium may actually help protect against stones by binding with oxalate in the intestines and preventing it from reaching the kidneys.

Go easy on the protein.

Experts say too much dietary protein can create an ideal environment for kidney stones to flourish. Try to cut back on your meat intake, and keep your Greek yogurt bingeing to a minimum.



DID YOU KNOW?

Kidneys keep the electrolytes in your blood in balance. Too little of certain minerals can cause cramping, twitching, muscle weakness, and foot and ankle swelling.



ginger

**HERBAL
REMEDIES FOR...**

**LIVER
HEALTH**

Help to keep your body's largest internal organ happy, healthy, and functioning at peak performance.

Go for Ginger

Forget about how delicious it is: This medicinal root has a multitude of health-boosting

functions too, including helping to protect your liver from toxins. Ginger root contains powerful compounds, such as gingerols, that help fight inflammation and protect against cellular damage. And published studies done on animals have found that ginger may help protect the liver from various liver diseases, including drug-induced liver injuries and toxic hepatitis.

FOOD FIXES

eat it up!

Better health with every meal



coffee and kidney disease

Here's some great news for morning joe lovers: If you've been diagnosed with kidney disease but rely on your morning fix to get you going in the morning, you don't need to give it up. But as with so many things, moderation is key. The National Kidney Foundation recommends that you limit your consumption to fewer than three cups of coffee a day. Also, pay attention to what you're adding to it. Avoid adding any creamers that contain chemical phosphates, which are easily absorbed by the body and should be limited for people living with kidney disease.

skip the sugary sodas

Here's another reason for you to consider putting your sugary beverage habit to rest: Research shows that drinking large amounts of sugary sodas and fruit drinks may raise your odds for developing kidney stones. A study of nearly 200,000 people tracked for more than eight years found that

people who drank one or more servings of sugar-sweetened soda a day had a 23% higher risk for kidney stones than those who drank less than one serving a week. Drinking other beverages instead could have a very desirable outcome, though. The study authors also found that those who drink coffee, tea, and orange juice are less likely to develop the painful stones. Hydration is beneficial for people with kidney stones, so reaching for water all day is always a great idea.

protect against fatty liver disease

Adding more potassium to your diet may help protect against non-alcoholic fatty liver disease (NAFLD): A study published in the journal *Clinical Endocrinology* found that patients with NAFLD had significantly lower potassium levels than those who did not have the liver condition. Sweet potatoes are a good source of this mineral, and shopping for the purple variety of this veggie may be even more beneficial: A 2020 study in the journal *Food & Nutrition Research* found that purple sweet potatoes may have even more protective effects against the disease.

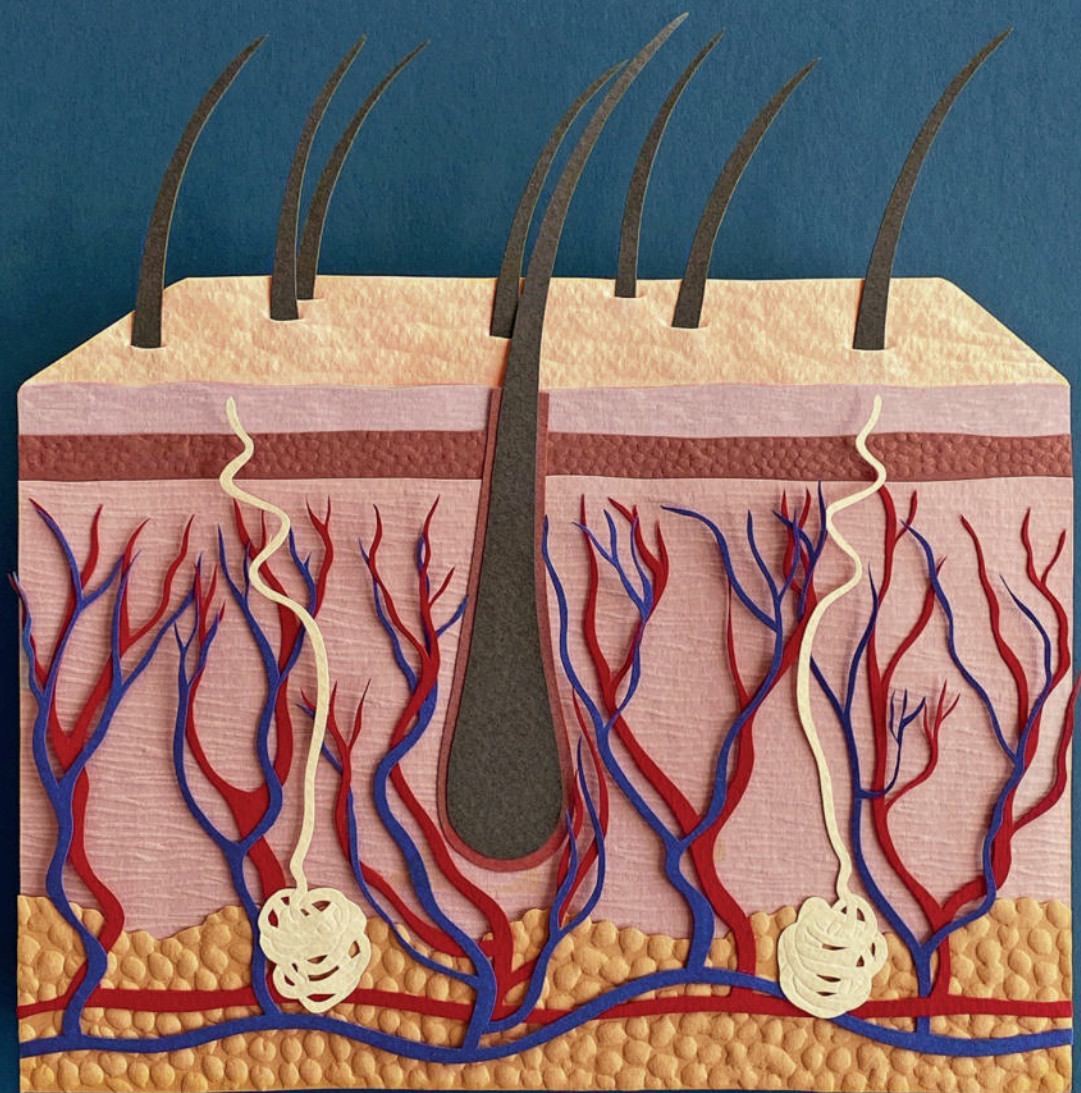


WHAT IS HEPATITIS?

Hepatitis is an infection of the liver, often caused by a virus. The most common types (heps A, B, and C) share these symptoms:

- › Dark urine
- › Yellowing of skin and whites of the eyes
- › Low-grade fever
- › Loss of appetite
- › Fatigue
- › Feeling sick to your stomach
- › Stomach pain
- › Pale or gray poop
- › Aching joints

Hepatitis A will generally clear up on its own with rest, and you should avoid alcohol and certain medications. Hepatitis B and C are more serious conditions that can lead to liver damage or failure, and even death.



MEET

your

SKIN

***y*OUR SKIN IS A THIN LAYER OF TISSUE THAT FORMS THE NATURAL OUTER COVERING OF THE BODY.** And caring about its appearance doesn't make you vain: You can want to protect yourself from skin cancer—and still embrace your wrinkles and laugh lines. Our skin is one of the only organs that's visible to us, so we pay attention to its changes in a more keen way. (And that's a great thing!) Maybe that spot that wasn't visible yesterday should be looked at before it becomes deadly. Maybe those crow's feet you spotted in the mirror popped up because you've spent so much of your life feeling happy and laughing. Skin should be loved and lived in—not picked apart. We've got the tools and tips you'll want for a smooth ride.

Protect Your Body's Largest Organ

Learn how to love the skin you're in.

Forehead:

Keep deep lines at bay

One of the best things about your face is how expressive it is. But every time you smile, frown, or scowl, lines show up. When you're younger, there's enough collagen to help your skin bounce back. But sun exposure and the passing of time both degrade collagen and elastin, which allows those expression lines an opportunity to set up shop.

Treat it right: You shouldn't ever stop smiling, but it's wise to slather on SPF to help prevent some of the

collagen loss. Before you go to sleep at night, use a serum or moisturizer that contains hydrating ingredients like ceramides. To address existing wrinkles, use a facial product that contains retinol, which helps stimulate collagen production.

Nose:

Spotting the spots

Show of hands: Who's spent extra mirror time examining the tiny black dots on her nose? They're often sebaceous filaments, hair-like structures that channel oil from the pores to keep skin soft. Your nose is affected because the T-zone has the most oil glands (very oily skin types may contain more). When oils mix with dead skin and bacteria

and block a pore, it's a blackhead; these spots are often larger and darker.

Treat them right: As tempting as it may be, don't ever squeeze them—it can cause scarring. A pore-flushing cleanser with salicylic acid can help minimize the appearance of sebaceous filaments and blackheads. Prescription retinoids or laser treatments can also make them less noticeable.

Neck:

Don't forget about me

We give our faces all sorts of TLC, but our necks are so often overlooked. The skin on our throats is crying out for some attention; it's thinner than the outer layer that covers your face, but it is frequently exposed to the sun. That makes it more vulnerable to collagen-sapping ultraviolet light damage, which can make the skin here appear saggy, crepey, and red.

Treat it right: Even if you've seen it on the store shelves, you don't need a neck-specific cream. Just slather the anti-agers you use on your face (retinol, peptides, SPF) on your neck too.

Lips:

Moisture needed

The skin on your lips sports very few oil glands, which is why lips can dry out and chap so easily. They're also exposed to lots of sunlight. (Yes, skin cancer can happen here too. And here's a fun fact: Your lower lip is 12 times more vulnerable than your



upper lip because it protrudes more.)

Treat them right:

When lips get dry, the first thing you want to do is lick them. Resist that urge—or at least swipe on a lip balm with SPF right afterward. Otherwise, the skin will dry out even more when the saliva eventually evaporates. That rumor about becoming physically dependent on lip balm? Total myth. The structure and function of your lips don't change in response to lip balms, though mentally you may crave that super-soft feeling.

Arms:

Battle roughness

As if plain ol' dry skin weren't bad enough, winter is bad for keratosis pilaris, a.k.a. the chicken-

skin bumps that dot the backs of your arms.

Treat them right:

Keratosis pilaris isn't curable, but it is treatable. Dersms recommend using an exfoliating cream containing urea, ammonium lactate, or alpha hydroxy acids to thin skin out and smooth its texture. But go easy on the exfoliation. Too much friction from loofahs, exfoliating gloves, or scrubs can cause more angry redness.

Back:

It's an oil hot spot, too

Your back contains a lot of oil glands. So when oil and bacteria build up, say under a sports bra, this can plug the hair follicle leading to the dreaded back acne.

Treat it right: If you notice a cluster of pimples on your body (your chest is another prime zone), cleanse the area with a body wash that contains an exfoliating and antibacterial ingredient like benzoyl peroxide three to four times a week. Then use an exfoliating body scrub once or twice a week to help keep pores clear.

Elbows & Knees:

Smooth them out

When you put your elbows on your desk at work or your knees on the floor at yoga or on the ground while gardening, the pressure and friction can cause skin there to thicken to protect itself.

Treat them right:

Suds up regularly with a cleanser that has

glycolic acid. Moisturize knees and elbows with a glycolic acid- or urea-based cream to break down dead skin.

Legs:

Shave less

As if you really needed a reason to take a few days off from shaving: folliculitis. These red bumps sometimes happen when razor blades injure the longer, deeper follicles found on the legs, allowing bacteria in. The skin here can also dry out as you get older (thank those hormonal changes), so moisturizing is key.

Treat them right: Hold off on shaving, and use a benzoyl peroxide-based body wash to kill bacteria and reduce inflammation. If dryness is your issue, slather on a rich cream.

8 SUN MYTHS BUSTED

Educate yourself about that giant ball in the sky before you go out to soak up your daily vitamin D.

MYTH **A tan gives you a healthy glow.**

Sorry, ladies, you're probably not going to want to hear this: A golden-brown tan is *not* the status symbol for a summer well lived. It's actually a sign of skin damage that puts you at increased risk for skin cancer, premature wrinkles, and dark spots.

MYTH **Most sun damage happens to you during childhood.**

Sure, you probably had more leisure time to spend outdoors as a kid, but whenever you expose your skin to the sun and get sunburned or a tan, you're incurring damage that builds up over time.

MYTH **Melanoma only affects your skin**

The term is nearly synonymous with skin cancer, but that is not the only organ it affects. Melanoma can also develop in your eyes, so be sure to always wear sunglasses on bright days and carefully apply sun cream to your closed eyelids.

MYTH **Once-a-day sun cream doesn't need reapplying.**

If you are swimming, sweating, or toweling yourself dry after

a dip in the pool or the ocean, any sunscreen you use—regardless of what it says on the label—should be reapplied. Otherwise, every two hours is the general rule to top up.

MYTH **Sun cream only needs replacing when it runs out.**

Definitely not true. Sun lotions and sprays have sell-by dates on the label that need checking. They usually last about 12 to 18 months after opening and then the protective benefits begin to fade.

MYTH **You don't need protection on cloudy days.**

As many as 80% of the sun's harmful UV rays can reach skin through the clouds. They can even penetrate when it's raining.

MYTH **A good dollop is enough.**

The likelihood is you're not applying nearly enough sunscreen. Studies show that people only apply 40% to 50% of the amount they should. Two tablespoons per application is the recommended amount for the average woman. If you're spending all day in the sun, you should use around half of a 200 ml bottle.



DARKER SKIN & SUN SAFETY

If you think you can skip the SPF if you're a person of color, think again. Without it, you're susceptible to both wrinkles and skin cancer. Although darker skin has more melanin—pigment that protects against UV rays—it's like wearing, at most, SPF 15. If you're tempted to skip, consider that people with darker complexions are often diagnosed with skin cancers at later stages. That lost time can matter. The average five-year melanoma survival rate for Black Americans is 69%, versus 94% for Caucasians. Even if your skin tone is the farthest thing from fair, use a broad-spectrum SPF 30+ daily.



DECODE THE SUNSCREEN LABEL

Using SPF daily is your first line of defense against wrinkling, age spots, and skin cancers like melanoma and different types of carcinomas. Exposure to ultraviolet rays has been shown to break down the proteins, collagen, and elastin that plump your skin and make it more springy. But do you know what to look for on the label? Here's a shortcut to figuring it out.



SPF

Sun Protection Factor.

A measure of how much solar energy is required to produce a sunburn. It refers only to protection from UVB rays.

UVB

Shortwave rays from the sun.

If you get a sunburn, these are the primary culprits. The most significant amount of UVB hits the U.S. between 10 a.m. and 4 p.m., April to October.

UVA

Longwave rays from the sun.

They are the main cause of photo-aging and also cause skin cancer.

BROAD SPECTRUM

Sunscreen designed to protect against both UVB and UVA rays.

UPF

Ultraviolet Protection Factor.

A measure of the amount of UV radiation a fabric can block.

CHEMICAL SUNSCREEN

One whose ingredients penetrate the skin and act as a filter against UV rays. Ingredients include oxybenzone, avobenzene, octisalate, octocrylene, homosalate, and octinoxate. Some people prefer chemical SPF for its non-chalky finish.

PHYSICAL SUNSCREEN

One whose ingredients sit on the skin, forming a layer to deflect UV rays. Look for mineral ingredients titanium dioxide and zinc oxide. It's best for sensitive skin.



DID YOU KNOW?

You can burn in the first few minutes of being in the sun, so it's best to apply sun cream at least 30 minutes before going outside. This allows it to absorb into the skin.



SKIN CANCER SPOT-CHECK

Detecting skin cancer means watching your spots, but it's tricky because as you age, your skin naturally develops more benign freckles, tags, and beauty marks. Some of these, such as moles, can morph into cancer. Don't panic if you see something new, but remember your ABCDE's. If the spot in question...

- A** Is Asymmetric
- B** Has a Bumpy border
- C** Has more than one Color
- D** Has a Diameter longer than six millimeters
- E** Has Evolved or changed shape or color...have a skin doc take a look ASAP.

And get a full-body mole exam annually—more frequently if melanoma runs in your family—to catch any problems early.

SKIN BY THE NUMBERS

0.05mm

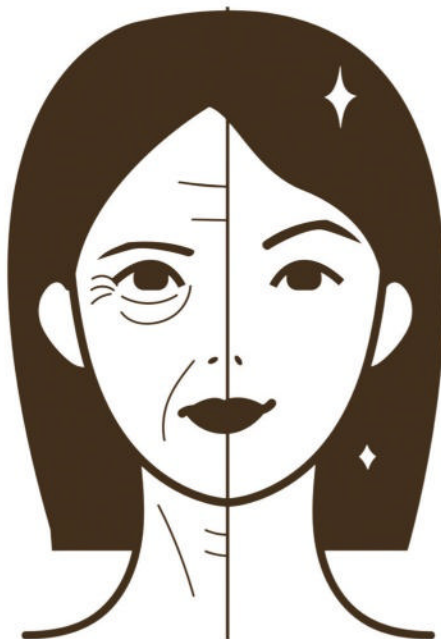
THE THICKNESS
of your eyelids.
They're super
delicate!

40

PERCENTAGE OF PEOPLE
who suffer from
keratosis pilaris,
bumps on the backs
of the arms. It's a
genetic condition
that happens when
the skin grows too
thick around hair
follicles.

30

MINIMUM SPF
YOU SHOULD USE
to protect your skin.
But one study found
that using SPF 70
or higher may
compensate if you
skimp on the
sunscreen or forget
to reapply.



SPOTLIGHT ON

wrinkles

They Are a Natural Part of Aging

As we get older, skin loses elasticity and produces less collagen (a fiber that gives skin more strength), leading to fine lines and wrinkles around the eyes, forehead, mouth, and even your neck.

The Deal With Expression Lines

Those little crinkles appear when you smile because muscles are attached directly to skin in this area of your face. That's different from, say, your arm, where the muscles attach to bones, not skin. Biceps wrinkles? Not a thing.

Your Genes Matter

While genetics do play a role, some people are simply more prone to wrinkles than others. White individuals are much more likely to show signs of

aging sooner, while Black and brown people may not develop wrinkles until a decade later.

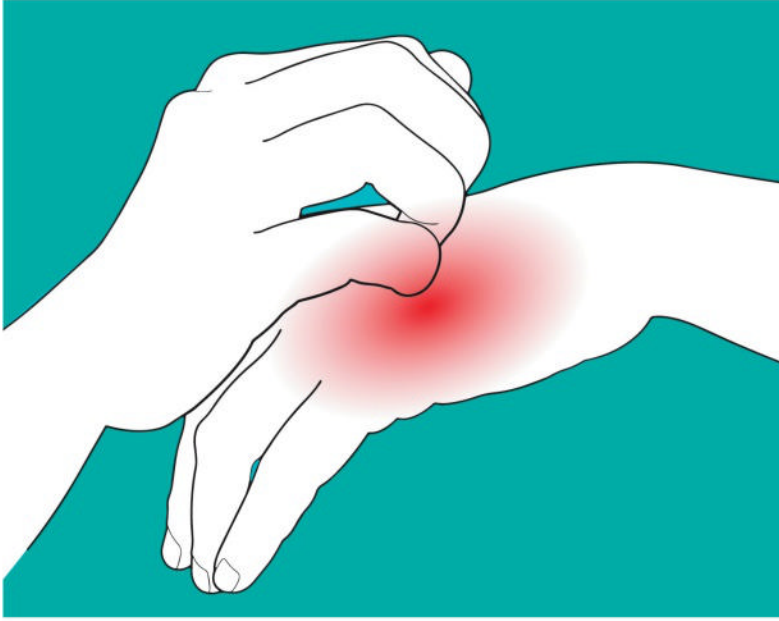
Put It Out

Not lighting up helps prevent wrinkles. They may not show up in smokers until later in life, but one study of nonsmokers and former and current smokers found evidence of "microscopic superficial wrinkling" in current smokers who were under 40 years old.

Prioritize Sleep

Our skin switches into healing mode when we doze off at night—increasing skin-thickening cell turnover, collagen production, and blood flow for faster cell turnover. "There isn't an injectable, laser, or product that can do what sleep does," says dermatologist Doris Day, M.D.

Six Ways to Prevent Eczema



4 KEEP MOISTURIZERS HANDY.

Stock up on small travel-size tubes of moisturizer, and carry them around in your purse or pocket, says Kleinsmith. "That way, every time you wash your hands, you can reapply a coat of moisturizer."

5 WASH THE ITCH OUT OF YOUR CLOTHES.

Use mild laundry detergents, and rinse your clothes twice when washing to clear away all traces of detergent, advises Deasey. "I stay away from those newer, blue liquid detergents, because I find that they leave residues on clothes that make people itch. I also avoid fabric softeners, because the fragrances in them can make your skin itch."

6 PROTECT YOUR HANDS.

Wear gloves whenever you do dishes or housework, because soap and water, cleaning products, and even dust can irritate your skin, advises Kleinsmith. "However, rubber gloves tend to get hot and make your hands sweaty, so wear cotton glove liners inside the rubber gloves to absorb perspiration," she says.

If you have allergies, hay fever, hives, or dry, overly sensitive skin, you may also have bouts of eczema, typified by a red and dry rash that itches like crazy. Here are tips and strategies you can use to prevent eczema.

1 GO EASY ON THE SOAP.

To avoid drying out your skin, use soap only on those body parts where you think you need it, recommends Karen K. Deasey, M.D., a dermatologist in Bryn Mawr, Pennsylvania. And stick with mild, non-irritating soaps. Glycerinated (see-through) soaps are also a good bet, Leiferman says. But avoid deodorant soaps, which tend to be harsh and irritating.

2 SEAL IN WATER WITH MOISTURIZER.

The best time to slather on moisturizer is

immediately after you step out of the bath or shower. Just blot off excess water with a towel, and liberally apply moisturizer while your skin is still damp, says D'Anne Kleinsmith, M.D., a dermatologist at William Beaumont Hospital in Royal Oak, MI. This after-bath treatment helps trap the moisture that has gotten into your skin while bathing.

3 GO FRAGRANCE-FREE.

Look for bland moisturizers that don't have a lot of fragrance, color, or additives that could irritate skin.



DID YOU KNOW?

In just one square inch of skin, you have around 650 sweat glands and at least 1,000 nerve endings.

FOOD FIXES

eat it up!

Better health with every meal



drink tea, look great

Your favorite relaxing beverage may have far more benefits than just helping you to wind down. A new study in the *European Journal of Integrative Medicine* revealed that compounds found in green tea help protect against skin aging, in part by suppressing your body's melanin production. They conclude that green tea could be beneficial for skin in both food and cosmetic products, so scan labels at the drugstore to look for skin-care options that contain the ingredient.

the diet-acne connection

Research shows that a diet heavy in dairy and foods with a high glycemic index rating (such as white bread or candy) might contribute to the severity of acne. A skin-friendly diet, which would be low in items like dairy, processed foods, and sweets, is also a nutritious one, says dermatologist William Rietkerk, M.D. "Have the whole-wheat bread instead of the white bread," he advises. "If you want to start making healthier food choices, choose things that are lower glycemic index, and avoid milk, if possible." But there is no magic bullet for acne, and



switching to almond milk in your cereal won't make zits disappear overnight. Instead, approach dietary changes with the same patience as an acne medication, which can take months to kick in, Rietkerk says.

the healing power of oranges

Vitamin C has long been linked to an increase of the production of collagen, the vitality-boosting protein that helps keep skin firm and taut. So the orange fruit—one of the most nutrient-dense sources of this vitamin—should definitely be on your skin-friendly shopping list. And maybe you should consider not tossing the peels either: Orange rinds contain even more vitamin C than the inner fruit. They also contain limonene, a chemical that may protect against skin cancer. Zest them to add flavor in sauces and salad dressings.

Q&A

I have scaly dry patches on my knees, elbows, and torso. What could it be?

There's a good chance it could be psoriasis, an autoimmune skin disease that causes red, itchy patches on the areas of the body that you described. Psoriasis is a common—but chronic—disease with no cure, but there are many treatments available. First, book an appointment with a dermatologist to confirm a diagnosis, so you can discuss options. According to the CDC, how the condition is treated depends on how much skin is affected, how many patches you have or how painful they are, or where they are located. Treatments range from creams to ultraviolet light therapy. Prescription drugs, such as methotrexate, may also be required. Some people with psoriasis also have an inflammatory condition that affects their joints, called psoriatic arthritis.

Prevention

THE GUIDE TO
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