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Brittle Bones Can Be Deadly

How to build your bones naturally before it's too late

By Vera Tweed

Lara Pizzorno, co-author of “Healthy Bones Healthy You!” is an exceptionally healthy, vibrant 73-year-old with the bone density of a typical 30-year-old. But it wasn't always that way. In her early 40s, Lara was shocked to learn that her bones were weak. Her mother, aunt, and grandmother had suffered from osteoporosis that led to their premature deaths, but Lara thought she had outsmarted her genes.

From an early age, she had followed a healthy diet and was very physically active. A medical writer and wife of naturopathic physician Joseph Pizzorno (who is also her co-author), she was well-educated in what constitutes a healthy lifestyle. So, what went wrong?

Tests revealed that for years a genetic trait had been blocking her body's ability to absorb vitamin D, which is needed for bones to use calcium and stay strong. Without the necessary vitamin D, her bones couldn't properly absorb calcium. Because of that, she developed osteopenia, low bone mass that is a

precursor of osteoporosis, in which bones become porous, brittle, and susceptible to fractures.

Once the problem was detected, Lara started taking a high dose of vitamin D and other supplements that overcame the genetic block, and her bones made a remarkable recovery. Not only did she stop losing bone, bone scans showed that her bone density increased.

Aging and Bones

“One of the challenges of living healthfully is that while people are young, the body has an incredible ability to adapt despite nutrient deficiencies and toxins,” Joseph tells *Health Radar*. But over time, the damage accumulates. “By age 50, diseases start coming up,” he says.

Healthy bones require three basic steps: getting the right nutrients, eliminating toxins that poison bones, and doing weight-bearing exercises that promotes bone building.

To start, the Pizzornos recommend focusing on nutrition with both food and supplements, while taking practical steps to reduce toxins from food, water, medications, and

skincare and household products. Fragrance and additives in beauty, cleaning, and deodorizing products accumulate in human tissues, but natural, nontoxic versions are available.

As your health improves, so will your energy, making it easier to incorporate regular exercise in your life.

Healthy Bones Diet

“Get nutrients in and toxins out,” is the way Joseph summarizes a bone-healthy diet. Toxins come from pesticides and chemical fertilizers used in producing food and in feed for animals that we eat, and from hormones and antibiotics given to livestock. These chemicals act as poisons for your bones. You can reduce the toxins by drinking filtered water and choosing organic fruits and vegetables, meat and eggs from pasture-raised animals, as well as wild-caught fish.

Not surprisingly, your bones need a diet of whole, rather than processed foods — the same type of diet that is beneficial for overall health. But the Pizzornos have identified some specific ways

in which food can prevent and reverse bone loss.

Eat plenty of vegetables. Leafy greens and a variety of nonstarchy vegetables reduce leaching of calcium from bones by lowering the acidity of your body.

Get enough protein. Many people eat less protein as they get older. That contributes to bone loss. A healthy intake is 25 grams to 35 grams of protein three times per day. A customized goal is 1.2 grams to 1.5 grams of protein daily per kilogram of your body weight, divided into three meals. One kilogram equals 2.2 pounds.

Get enough calcium. Without sufficient calcium — 1,200 mg daily from food and supplements — animal protein will promote calcium loss.

Eat healthy fats. The fats in organic meat, eggs, and dairy products, fatty fish such as salmon, extra-virgin olive oil, other cold-pressed oils, and fat in plant foods such as avocados, nuts, and seeds protect bones. Processed foods contain refined oils that contribute to bone deterioration.

Avoid processed foods. In

addition to containing toxic food additives, high levels of salt and sugar in processed foods promote excretion of calcium, depleting bones.

Go easy on grains. Avoid refined grains altogether and limit or avoid whole wheat, as these promote inflammation that destroys bone.

Beware of too much alcohol. Up to one drink daily for women and up to two for men may enhance bones, but more than that will lead to bone loss.

How to Get Started

Lara recommends keeping a food journal to get a sense of which vital bone nutrients your diet is lacking. Using a free nutrient-tracking website and/or phone app, such as Cronometer (cronometer.com) or MyFitnessPal (myfitnesspal.com) is a simple way to do it. After entering the food you’ve been eating, the top nutrients to track are calcium, magnesium, and vitamin D. Once you know how much your diet provides, you can see what needs to be corrected with supplements.

Vitamin K2 is another vital nutrient because it helps calcium



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Health Editor

Tricia Cooney Bresnahan

For Subscription/Customer Service inquiries, call 1-800-485-4350 or

e-mail healthradar@newsmax.com.

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to get into bones while preventing the mineral from being deposited in arteries. None of our typical foods contain sufficient amounts of vitamin K2, so supplements are the only option. Fish oil and trace minerals are other essentials for bone health.

Bone-Building Exercises

Exercise activates bone-building cells and is essential for maintaining or increasing bone density. Pilates, yoga, exercises with weights or your own body weight, and ballet exercises are especially good. But if you don't currently exercise regularly, start by walking, gardening, or dancing in your living room.

Preventive Health Blood Tests

In addition to diet and exercise, untreated health conditions can underlie or contribute to bone loss. To rule these out or get them addressed, get a preventive health checkup with blood tests that include markers of cholesterol, triglycerides, blood sugar, inflammation, thyroid and kidney function, and RBC magnesium, which measures magnesium in red blood cells.

Bone Mineral Density Test

The DEXA scan is the standard test for bone health. It's a type of X-ray that measures bone density. It isn't invasive or painful, and doesn't require any special preparation. Private insurance or Medicare will cover the cost if it's prescribed by your physician.

DEXA scans are typically prescribed at age 65 for women and at age 70 for men. Lara encourages people to talk to their

doctors about getting the scan earlier, to detect and correct bone loss sooner.

Insurance will generally pay for DEXA scans that are prescribed earlier if a patient has a family history of osteoporosis; has suffered from a fracture; is taking medication that weakens bones, such as steroids, lithium, or cancer drugs; or has a health condition that is known to weaken bones, such as rheumatoid arthritis, diabetes, lupus, or liver, kidney, or thyroid disease.

Scans may be repeated every one or two years.

Once you have your DEXA results, Lara recommends checking your fracture risk with the Fracture Risk Assessment Tool (FRAX) a free online tool created by the University of Sheffield in the United Kingdom, at sheffield.ac.uk/FRAX/.

Tests of Bone Turnover

Bone is continually turning over. Osteoblasts are cells that build new bone and osteoclasts are cells that remove old bone and waste. There should be a balance between them. There are two blood tests that measure bone turnover: a CTx test measures bone removal and a PINP test measures bone formation. They don't replace a DEXA scan but can help to identify a problem and then can be done every few months to monitor progress of any treatment.

Reversing Bone Loss

"I wish there was some magic pill, but there isn't," says Lara. Bone drugs such as bisphosphonates prevent old bone from being removed and increase the risk for fractures in the longer term. But the right food, supplements, and exercise can seem like magic. □

Supplement Snapshot

Calcium and Magnesium: These two minerals should be balanced in a 2:1 ratio. Aim for a daily total of 1,200 mg of calcium and 600 mg of magnesium from food and supplements. These are some common supplement doses of each:

Calcium: 350 mg, twice daily. Taking a larger dose at one time will reduce absorption.

Magnesium: 175 mg, twice daily.

Vitamin D: 1,500-2,000 IU daily. However, it's best to get a blood test to check your level and take a dose based on your personal needs. Retest in a few months and adjust the dose if needed to achieve a blood level of 60 ng/mL.

Vitamin K2 in the form of MK-7: The amount depends upon your daily dose of vitamin D.

Vitamin D Daily	Vitamin K2 Daily (MK-7 form)
1,000-2,000 IU	100-180 mcg
3,000-4,000 IU	200-300 mcg
5,000 IU or more	360 mcg

Omega-3 Fatty Acids from Fish Oil: 2,000-4,000 mg of EPA plus DHA from food and supplements.

Supporting Minerals: These may be taken in a multivitamin, in a separate mineral formula, or as individual minerals.

- Boron: 3 mg
- Manganese: 3-5 mg
- Selenium: 200 mcg
- Silicon: 40 mg
- Zinc: 15-30 mg
- Copper: 1-2 mg



Making **YOU** Live Healthier

Avoiding Diabetes Complications

As insulin resistance increases and blood glucose becomes harder and harder to manage, it's necessary to pay almost constant attention to activity levels, diet, and other lifestyle habits that can make or break one's attempt to regain control.

That's not easy. Less than half of folks with Type 2 diabetes are able to establish tight glucose control, despite the use of medications and lifestyle changes. That means they're at serious risk for the complications that result from unstable and elevated blood glucose levels. Everything from cardiovascular disease and ketoacidosis to kidney and nerve damage, blindness, gastrointestinal distress, depression, chronic wound infections, hearing loss, gum disease, and dementia is associated with Type 2 diabetes.

There have been significant advances in medications to manage both diabetes and heart disease (statins and antihypertensives), as well as new classes of diabetes drugs that help manage glucose levels as well as kidney and liver problems and heart failure in order to extend lives. They are often used in combination with basic medications such as metformin or, in more advanced cases, with insulin.

Nondrug approaches have also gotten more effective, and we know how to prevent the onset in high-risk people and even reverse the disease with aggressive lifestyle changes in the early years after onset.

The DiRECT trial showed that within six years of diagnosis, by losing about 33 pounds on a low-calorie diet, 86 percent of people with Type 2 will no longer have the disease a year later.

Gastrointestinal Surgery Works

Unfortunately, there are still far too many people experiencing the devastating complications

of Type 2 diabetes. Almost seven in 10 people with diabetes over age 65 will die of some type of heart disease.

About one in six will die of stroke. And 247,000 are currently living with kidney failure resulting from diabetes.

That's where gastrointestinal surgery comes into the picture. It's the most powerful remedy for people who are obese, have Type 2 diabetes, and are headed toward the life-altering complications it triggers.

The problem is that people don't see it as a viable option. It's surgery, after all, and afterward you must have a lifelong commitment to change your eating and activity habits and maintain your weight loss. But it definitely works.

Dr. Ali Aminian and his research team at the Department of Quantitative Health Sciences in the Lerner Research Institute published two studies in *JAMA* that showed people with obesity and Type 2 diabetes who had the weight-loss gastrointestinal surgery achieved a 40 percent lower risk of death and had far fewer major cardiovascular events over a 10-year period than people who were getting standard medical care for the disease.

To help people decide if they should opt for gastrointestinal weight-loss surgery, the researchers developed a calculator that can estimate your 10-year risk of developing diabetes-related complications. It lets you know how those risks will be reduced or eliminated if you opt for the surgery. You can use the calculator at riskcalc.org/BariatricSurgeryComplications.

Take a look at your risks and at how much surgery could benefit you. Then talk with your endocrinologist about what you've learned. Figure out together your best treatment option for a longer and healthier future. □

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Dr. Michael Roizen is chief medical officer at the Cleveland Clinic Wellness Institute. Dr. Roizen is a co-author of the best-selling *You* book series.

At Risk for Stroke? Making These Lifestyle Changes Lowers That Risk

By Charlotte Libov

If your parent or other close relative has suffered a stroke, you may think you are destined to also have a stroke. But a new study finds that you may be able to change your fate by following a healthy cardiovascular lifestyle.

The study found that men and women who adhered to seven heart-healthy habits cut their stroke risk by 43 percent — and added more healthy years to their lives — even if they were at genetic risk.

“Our study found that if you maintain a healthy cardiovascular lifestyle, you can mitigate your risk of stroke, and we found this in groups of people across the board, even in those who were at the highest genetic risk,” says Myriam Fornage, Ph.D., lead author of the study published in the *Journal of the American Heart Association*.

About Stroke

Each year, 795,000 people in the U.S. suffer a stroke, according to the Centers for Disease Control and Prevention. Stroke is a leading cause of long-term serious disability — half of all survivors aged 65 and older are left with reduced mobility. But stroke also occurs in younger adults. In 2014, 38 percent of people hospitalized for stroke were younger than 65.

Study Findings

The study included 11,568

men and women, ages 45 to 64, who were stroke-free at the beginning of the study. They were followed for an average of 28 years. Their levels of cardiovascular health were based on the American Heart Association’s Life’s Simple 7 recommendations for cardiovascular health, says Fornage, professor of molecular medicine and human genetics at the Institute of Molecular Medicine at UTHealth Houston. The seven recommendations are stopping smoking, eating better, getting activity, losing weight, managing blood pressure, controlling cholesterol, and reducing blood sugar.

The lifetime risk of stroke was computed according to what is called a stroke polygenic risk score, in which people with a stronger genetic risk for stroke score higher.

People in the study who scored the highest for genetic risk of stroke and the poorest for cardiovascular health had the highest lifetime risk of having a stroke: 25 percent. Regardless of the level of genetic risk of stroke, those who had practiced optimal cardiovascular health had a 30 percent to 43 percent lower lifetime risk for stroke than those with a low Life’s Simple 7 score. That added up to nearly six more years of stroke-free life.

Overall, people with a low adherence to AHA’s Life’s Simple 7 suffered 56.8 percent of stroke events, while those with a high

adherence experienced 6.2 percent of strokes.

While all seven of AHA’s lifestyle changes are important, the two which correlated the highest with reducing stroke risk were managing blood pressure and reducing blood sugar. “High blood pressure is the highest risk factor for stroke that can be modified, and blood sugar relates directly to diabetes, which raises stroke risk as well,” notes Fornage.

But all the lifestyle steps were important, she adds.

Study Implications

“The risk of stroke as we age is quite high. The prevalence of stroke doubles for each decade after the age of 50, and the risk is higher for people with a family history of it,” explains Fornage. “But what our study shows is that, family history or not, maintaining good cardiovascular health is beneficial to everyone.”

In addition to reducing stroke risk, the AHA’s seven steps also help reduce the risk of dementia and Alzheimer’s disease, because good heart health is increasingly credited for good brain health as well, she adds.

There also may be the need for a follow-up study, says Fornage, noting that, recently, the AHA decided to add an eighth recommendation for lowering risk for cardiovascular events — getting seven to nine hours of sleep a night, so the list is now known as the Life’s Essential 8. □

How to Treat Painful Reflux Naturally

By Lynn Allison

Heartburn, reflux, and other stomach ailments are on the rise, and unfortunately the medications used to treat these conditions have troubling side effects. Fortunately, safer natural remedies may be just as effective.

Gastroesophageal reflux disease (GERD), a digestive disorder that causes heartburn and other uncomfortable symptoms, affects nearly a third of U.S. adults each week, according to a recent study conducted by Cedars-Sinai. Also known as acid reflux, GERD is caused when gastric acid from the stomach flows back into the esophagus. This can happen when the lower esophageal sphincter — a muscle that briefly opens to let food into the stomach and closes to keep food inside — relaxes too often or for too long.

Neel Choksi, M.D., a leading gastroenterologist at the Kelsey-Seybold Clinic in Houston tells *Health Radar* that, in his experience, the incidence of GERD may be even higher than noted in the Cedars-Sinai study. “GERD is an extremely common condition, and some studies have found that approximately half of adults in the U.S. will experience it at some point in their lifetime. Typical symptoms include heartburn and regurgitation, although a number of patients experience silent GERD with no symptoms,” he says.

Jacob Teitelbaum, M.D., a board-certified internist, and the author of the Cures A-Z phone app, explains that as we age, our ability to digest food efficiently declines.

“When you have poor digestion, food can sit in the stomach for longer than the usual 30 to 45 minutes,” he explains. “Then it can squirt back into the esophagus, burning its sensitive lining.”

Medication Side Effects

The most commonly prescribed medications for GERD are proton-pump inhibitors (PPIs), says Choksi. These drugs, such as omeprazole and esomeprazole, block the production of acid in the stomach. “Several short-term and long-term side effects are attributed to PPIs, including decreased absorption of calcium and magnesium, certain types of pneumonia and diarrhea, and even kidney disease.”

Teitelbaum paints an even darker picture of the dangers of PPI medications. “Research suggests that these drugs contribute to about 30,000 excess U.S. deaths annually,” he says. “Chronic use of these medications is associated with a 44 percent higher risk of dementia and a 25 percent higher risk of death.”

Natural Alternatives

Choksi advises discussing the risks and benefits of continuing a PPI with your doctor. In the meantime, he suggests instituting lifestyle and dietary changes to treat the root cause of GERD. For example, avoiding or minimizing foods known to trigger GERD. These include tomatoes, onions, garlic, caffeine, chocolate, peppermint, and alcohol. Losing weight and elevating your head

with a wedged-shaped pillow can also help. Eating smaller meals and not eating within four hours of bedtime can be effective strategies for reducing GERD as well. Wearing loose clothing can put less pressure on your stomach and alleviate symptoms.

For acute symptoms, try an over-the-counter medication such as Roloids, says Teitelbaum. “This mixture of calcium plus magnesium is much healthier than plain calcium antacids,” he says. “For more intensive care, use 10 to 20 milligrams of famotidine (Pepcid AC) or 200 milligrams of cimetidine (Tagamet) at bedtime or twice a day as needed.”

To neutralize stomach acid, mix one-half teaspoon of bicarbonate of soda with four ounces of water and drink it at bedtime. People with high blood pressure should choose food grade potassium bicarbonate, available at health food stores and online.

Ellen Kamhi, Ph.D., author of *The Natural Medicine Chest*, says sipping chamomile tea can help calm an upset stomach. It also helps reduce stress and anxiety that may trigger digestive disorders.

Ginger root can reduce the likelihood of stomach acid flowing up into the esophagus. It can be peeled and grated for use in cooking or steeped in hot water to make ginger tea. The most important thing to remember about taking ginger is moderation, says Kamhi. Sticking to four grams (a bit less than a fourth of a cup) should be enough to give relief. □

What You Need to Know About the New Omicron COVID Boosters

By Fran Kritz

In late August, the Food and Drug Administration (FDA) granted emergency use authorization for two new COVID-19 booster shots made by both Pfizer and Moderna. The two new boosters offer wider protection than the previous boosters. The Pfizer shot is approved for people ages 12 and older, while Moderna is approved for those 18 and older.

The older Pfizer and Moderna boosters are no longer authorized by the FDA, and no longer available.

Bivalent Boosters

The new boosters are called “bivalent” because they offer protection against the original virus and against the newer Omicron variants BA.4 and BA.5. The newer variants are currently causing most cases of COVID-19 in the U.S., and are predicted to circulate this fall and winter, according to the Centers for Disease Control and Prevention (CDC). “The updated COVID-19 boosters are formulated to better protect against the most recently circulating COVID-19 variant[s],” says CDC director Rochelle Walensky, M.D. “They can help restore protection that has waned since previous vaccination, and were designed to provide broader protection against newer variants.”

According to the FDA, the new boosters are similar enough to the previous ones that short-term side effects, if any, should be similar: fatigue, fever, arm soreness, and achiness. The FDA based its authorization on studies from a vaccine similar to the ones authorized, as well as animal studies on the two new boosters. Pfizer and Moderna will be completing effectiveness trials later this year.

Who Should Get a Booster?

The new boosters are recommended for everyone ages 12 and older and younger age groups are expected to be added. “Infectious diseases experts urge everyone who is eligible to get boosters,” says Daniel McQuillen, M.D., president of the Infectious Diseases Society of America and a physician at Lahey Hospital & Medical Center, in Burlington, Mass. “COVID-19 is not over. Nearly 400

people die from COVID every day, and almost 5,000 people are currently hospitalized,” says McQuillen. “Vaccines are the best way to prevent serious infection, hospitalization, and death.”

That’s especially the case for older adults, says William Schaffner, M.D., medical director of the National Foundation for Infectious Diseases and professor of infectious diseases at Vanderbilt University School of Medicine. “Immune systems decline as adults age,” notes Schaffner. “Although COVID-19 can affect anyone, the risk for severe illness increases with age, and older adults are at greater risk for hospitalization and death.”

When To Get Your Booster

If you haven’t had your primary vaccines yet, the CDC advises starting with those. You’ll need to wait at least two months after your last primary shot or after a previous booster, and at least three months after a bout of COVID-19 so that your body produces a strong response to the bivalent shot. However, the timing can be shorter between shots for people who are older and/or immunocompromised, or if cases begin rising. Check CDC guidance on timing for vaccine and booster shots by going to [cdc.gov/coronavirus](https://www.cdc.gov/coronavirus) and searching “stay up to date.”

Finding a Booster Shot

Pharmacies, doctors’ offices, and community health centers are all administering the new Omicron boosters, and you may be able to make an appointment. Go to [vaccines.gov](https://www.vaccines.gov) or call 800-232-0233 to find primary and booster shots near you.

You should also get your flu shot no later than the end of October so you’re protected, says Lisa Grohskopf, M.D., a medical officer in the CDC’s influenza division. “You can get both a flu and COVID shot on the same day,” says Grohskopf. “But you may want to get a shot in each arm to reduce the side effects, if any.” Both are free.

If your CDC vaccine card is full, expect a second card for the next dose. Staple them together and snap and save a photo. □

If Sleep Apnea Is Not Treated It Can Lead to Serious Health Problems



Eric J. Kezirian, M.D., is one of the leading researchers and surgeons specializing in snoring and obstructive sleep apnea surgery. He is a professor in the department of otolaryngology-head & neck surgery at Keck School of Medicine of the University of Southern California. Kezirian's website is sleep-doctor.com.

Q: What is sleep apnea?

A: Obstructive sleep apnea (OSA) is a potentially serious sleep disorder. It causes breathing to repeatedly stop and start during sleep. During sleep, the muscles of your body relax, and in people with sleep apnea, this relaxation blocks the breathing space in the throat. It is estimated that 30 million adults in the United States are affected by OSA. And that doesn't include the children who are affected. A recent study by Swedish researchers found that sleep apnea increases the risk of certain types of cancer, likely due to the oxygen deprivation caused by the disorder.

Q: Who is at risk for sleep apnea?

A: About 40 percent of men and women over the age of 60 have obstructive sleep apnea. The most common risk factors are age, male gender, and being overweight or obese. Men are twice as likely as women to have sleep apnea. As we are experiencing increasing rates of obesity in our society, we are also seeing a rise in the incidence of sleep apnea. Specific sources of blockage in breathing also increase risk. These include enlarged tonsils, a small upper or lower jaw, and narrowing of the nasal passages.

Q: How do I know if I have sleep apnea?

A: Symptoms of sleep apnea include snoring, holding your breath, and gasping for air. Sleep apnea is a leading cause of daytime sleepiness because sufferers do not get a good night's sleep.

This can lead to fatigue and diminished quality of life. And although we make jokes about snoring, it can disrupt the sleep of others and adversely affect our relationships. Anyone who experiences these symptoms should speak to their primary healthcare provider, especially if they have other health issues that may be related to sleep apnea, such as high blood pressure, other forms of cardiovascular disease, diabetes, or memory loss. Someone with these symptoms may need a referral to a sleep specialist for a test called a sleep study that can evaluate their condition.

Q: How is sleep apnea treated?

A: Conservative treatments include weight loss, sleeping on your side or stomach rather than on your back, and avoiding alcohol and other sedatives before bedtime. Beyond that, the most common treatment is continuous positive airway pressure (CPAP), which works by blowing air through the nose and/or throat to prevent blockage of the airways. Oral appliances can treat obstructive sleep apnea by holding the lower jaw forward during sleep, opening the space for breathing.

Q: Are there surgical treatments?

A: For many years, the only surgical intervention used for sleep apnea was uvulopalatopharyngoplasty (UPPP). This is a surgery of the soft palate and includes removal of the tonsils. UPPP is not very effective unless a patient has markedly enlarged tonsils. An exciting new procedure to treat sleep apnea is called upper airway stimulation, a therapy from Inspire Medical Systems. A device is implanted and acts like a pacemaker for the tongue. During sleep, the device can deliver gentle stimulation to move the tongue forward and open the airways. Studies have found upper airway stimulation remains effective for at least five years. □

How the Inflation Reduction Act Can Save You Money

By Fran Kritz

The Inflation Reduction Act (IRA), which was signed into law this summer, brings with it a host of potential medical savings for adults, especially Medicare beneficiaries. According to experts at the Medicare Rights Center in New York City, which advises people on Medicare benefits, “every day . . . we hear from older adults . . . who are struggling to pay for care. They may go without, or may cut back on other basic needs, like food or rent, just to fill a prescription. The IRA will help ensure fewer people face these impossible choices.”

Health insurance costs.

During the pandemic, Congress increased premium subsidies for marketplace health plans. The subsidies were set to expire at the end of 2022, but the IRA extends them for another three years.

Drug expenses. Beginning in 2025, the out-of-pocket costs Medicare Part D (outpatient prescription drug coverage) beneficiaries spend on medication will be capped at \$2,000 per year (there is currently no cap.) That cap will be especially helpful for people who take expensive drugs for life-threatening conditions, such as chemotherapy drugs for cancer, according to the Kaiser Family Foundation, a health research firm based in Washington, D.C.

Possible penalties for drug manufacturers. As of October 2022, if the price of a Part D prescription drug is raised by

more than the rate of general inflation, the drug manufacturer will have to give Medicare the amount of the increase above the inflation rate. That same penalty begins for Medicare Part B drugs (outpatient drugs given in a hospital or doctor’s office, such as chemotherapy) in January 2023. Individuals won’t see that money, though. Medicare will keep the funds for its programs.

Negotiated drug prices.

Beginning in 2023, the U.S. Secretary of Health and Human Services will be able to negotiate the prices of some drugs used by Medicare patients. That’s a long-awaited goal, says Kristen Kiefer, chief advocacy and engagement officer for the National Council on Aging (NCOA). The negotiated prices will go into effect in 2026 for drugs covered under Part D and in 2028 for drugs covered under Part B. Each year additional drug prices can be negotiated for a total of 60 drugs by 2029.

Among drugs likely to be negotiated, per AARP, are Eliquis for atrial fibrillation, Januvia for Type 2 diabetes, Xtandi for prostate cancer, Myrbetriq for overactive bladder, and Orencia for rheumatoid arthritis.

More drug savings. In 2024, the new law eliminates the 5 percent coinsurance for patients with the highest drug expenses under Medicare Part D.

Capping insulin prices. The cost of insulin will be capped at \$35 per month for Medicare

beneficiaries beginning in 2023, but not for those who have private insurance or no health insurance. NCOA’s Kiefer calls this change important because data from 2019 show that 3.3 million Medicare Part D beneficiaries use insulin at an average cost of \$54 per prescription. “Nearly half of these beneficiaries have low incomes,” says Kiefer. “Capping the insulin price will give many people access to a prescription they may not be taking now.”

Medicare Part D plans will be less expensive. Under the IRA, monthly premiums for Medicare Part D plans can’t increase more than 6 percent per year through at least 2029. And the income level that qualifies seniors for a Part D subsidy to help pay for premiums, deductibles, and cost-sharing will increase beginning in 2024, making more people eligible. An individual will qualify with an annual maximum income of 150 percent of the federal poverty level (\$20,385 for an individual in 2022), compared with the previous maximum of 135 percent of the federal poverty level (\$18,347).

Free vaccines. The law also eliminates any cost-sharing for adult vaccines under Medicare Part D and Medicaid, as long as the vaccines are recommended for use by the Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices. □

This Flu Season May Be Severe: Get Your Vaccine Now

By Fran Kritz

If you still haven't gotten your flu shot, it's time to roll up your sleeve. Flu season in the U.S. begins early October and extends into May. To many people, the flu may seem like just a bad cold, but it's a serious disease that can cause severe illness, hospitalization, or deaths, especially in older adults and those with chronic health conditions such as heart disease, says Tina Tan, M.D., a professor of pediatric infectious disease at Northwestern University's Feinberg School of Medicine.

More severe flu season ahead?

While the last two flu seasons have been quite mild with fewer hospitalizations and deaths than some years before, the upcoming season is predicted to be harsher. Among the reasons, says Kathleen Neuzil, M.D., director of the Center for Vaccine Development and Global Health at the University of Maryland School of Medicine, is that the Southern Hemisphere, where the flu season begins in the summer, has seen more cases this year than in the past two years, as well as more severe cases. "In addition," says Neuzil, "fewer people are wearing masks now. Masks worn to protect against getting COVID-19 in the last couple of years also prevented many people from getting the flu."

What's in your flu shot. Flu shots administered in the U.S. are "quadrivalent" vaccines, according to the Centers for Disease Control and Prevention (CDC). That

means they protect against four different flu viruses: two influenza A viruses — influenza A(H1N1) virus and influenza A(H3N2) virus — and two different influenza B viruses. An international committee chooses which flu strains to include in each year's flu vaccines at the end of the previous flu season. The committee bases their decision on the flu strains that are circulating at the time they meet.

New flu shot recommendations for older adults. People ages 65 and older are at greater risk of developing serious complications from the flu because the immune system gets weaker with age. That weakened immune system can also keep people from mounting a strong response to a flu vaccine. That's why each year the Food and Drug Administration (FDA) approves several higher dose flu vaccines for older adults.

This year, for the first time the CDC says that the higher dose vaccines are "preferentially recommended" for older adults. They include Fluzone High-Dose Quadrivalent vaccine, Flublok Quadrivalent recombinant flu vaccine, and Fluad Quadrivalent adjuvanted flu vaccine. José R. Romero, M.D., director of the CDC's National Center for Immunization and Respiratory Diseases, says an additional reason for this year's preferential recommendation of the high-dose flu vaccines for older adults is because data show that many

older people of color are not getting the higher dose vaccines. "This recommendation could help reduce health disparities by making these vaccines more available to racial and ethnic minority groups," said Romero.

Doctors' offices and pharmacies should stock the higher dose vaccines, especially earlier in the season. But the CDC recommends getting any flu shot available when you go for your vaccine if the high-dose versions aren't available. "If you might not go back for the high-dose version, get the one available now," says Tan.

Antiviral flu treatments. The flu vaccine protects against severe disease and makes it less likely you will get the flu, but it is not a guarantee that you won't get the flu at all. The CDC recommends calling your doctor if you feel flu symptoms such as fever, chills, aches, headache, sore throat, or cough. If your flu test confirms you have the flu, ask your doctor about taking an antiviral flu drug, such as Tamiflu. Flu antivirals must be taken within 48 hours of the start of symptoms.

Most flu shots are free.

Medicare and most private insurers pay for flu shots, but you will have to show your insurance card. No insurance? Check your local library for information on free flu shot clinics, or CDC's vaccine locator can help you find community health centers that offer the shot for free at vaccines.gov/find-vaccines. □

FDA Approvals: Lung Cancer, Wrinkle Treatment, Blood Disorder

Compiled exclusively by Health Radar, here are the most significant new drugs and medical devices approved by the U.S. Food and Drug Administration.

Tabrecta for Non-Small Cell Lung Cancer

The U.S. Food and Drug Administration granted regular approval to capmatinib (Tabrecta) for adult patients with metastatic non-small cell lung cancer (NSCLC) whose tumors have a genetic mutation. Approval was based on a trial of 160 patients with metastatic NSCLC and a mutation leading to MET exon 14 skipping. Patients received 400 mg of capmatinib orally twice daily until disease progression or unacceptable toxicity. Among 60 treatment-naïve patients, the overall response rate was 68 percent with a duration of response of 16.6 months. Overall response rate was 44 percent and duration of response was 9.7 months among 100 previously treated patients. Adverse reactions were seen in 20 percent of patients and included edema, nausea, musculoskeletal pain, fatigue, vomiting, dyspnea, cough, and decreased appetite.

“With this new targeted therapy that treats a specific mutation driving cancer growth, we are delivering a much-needed treatment option and bringing hope to patients with this challenging disease,” Marie-France Tschudin, president of Innovative Medicines International and chief commercial officer at Novartis, said in a statement earlier this year.

Wrinkle Treatment Alternative to Botox

The FDA approved the first competitor for Botox in decades. Daxxify, made by Revance Therapeutics Inc. in Nashville, Tenn., is injected into the face along worry lines. It lasts longer than Botox, with about 80 percent of users seeing no or mild facial lines at four months after injection. For half of users, the treatment lasted six months. Users of Daxxify in the Revance studies included some who experienced side effects. About 2 percent of people developed a drooping eyelid, while about 6 percent experienced headache. Toxin-based treatment can carry the potential for other side effects, such as general muscle

weakness or breathing difficulties. Daxxify study participants showed none of those symptoms.

Revance had initially hoped for approval of its product in November 2020, but plans were postponed because of pandemic travel restrictions. An inspection finally conducted in June 2021 found problems with the quality control process and the company’s working cell bank, which contain the drug’s active ingredient. Those concerns were resolved.

New Treatment for Blood Disorder

The FDA approved Zynteglo (betibeglogene autotemcel), the first cell-based gene therapy for the treatment of adult and pediatric patients with beta thalassemia who require regular red blood cell transfusions. Zynteglo is a one-time, single-dose gene therapy product. Each dose of Zynteglo is customized and created using the patient’s own bone marrow stem cells, which are genetically modified to produce functional beta-globin. The application was granted a rare pediatric disease voucher, as well as priority review, fast-track, breakthrough therapy, and orphan designations.

The approval was based on two multicenter clinical studies. Of 41 patients receiving Zynteglo, 89 percent achieved transfusion independence, defined as maintaining a predetermined level of hemoglobin without needing any red blood cell transfusions for at least 12 months. The most common adverse reactions seen with Zynteglo included reduced platelet and other blood cell levels, mucositis, febrile neutropenia, vomiting, fever, alopecia, nosebleed, abdominal pain, musculoskeletal pain, cough, headache, diarrhea, rash, constipation, nausea, decreased appetite, pigmentation disorder, and itch.

Given the potential risk for blood cancer associated with this treatment, patients receiving Zynteglo should have their blood monitored for at least 15 years for evidence of cancer. The FDA says patients should also be monitored for hypersensitivity reactions during Zynteglo administration and for thrombocytopenia and bleeding. □

HRT DOES NOT INCREASE RISK FOR BREAST CANCER RECURRENCE

Research published in the *Journal of the National Cancer Institute* found that hormone replacement therapy (HRT) was not associated with breast cancer recurrence in breast cancer survivors. The large study involving nearly 8,500 Danish women who were diagnosed with early-stage estrogen receptor-positive breast cancer divided the women into two groups. One group had not received vaginal or systemic HRT before or after being diagnosed, while the second group did take vaginal or systemic HRT. The researchers followed the women for up to 10 years and found that HRT did not increase the risk of breast cancer recurrence or mortality.



EATING CARROTS PROTECTS FROM POLLUTION

Scientists at the University of Delaware discovered that eating more apiaceous vegetables — which include carrots, celery, parsley, and parsnips — can help protect against the negative effects of air pollution. Lab tests found that this specific vegetable family protects the body from acrolein accumulation, which is present in large amounts in both cigarette smoke and automobile exhaust, and triggers oxidative stress. Researchers calculated the amount of vegetables needed

for the beneficial effect. “We determined the actual daily calorie amount of apiaceous vegetables for humans is roughly one and one-third cups a day,” said Jae Kyeom Kim, Ph.D. “It doesn’t require a high intake to see a difference, and this is an achievable amount in daily life.”

OCTOGENARIANS CAN LIVE LONGER WITH LIFESTYLE CHANGES

Adopting healthy lifestyle behaviors increases life expectancy even for people older than 80, says a Japanese study published in the journal *Age and Ageing*. Lifetime gains were highest for reducing alcohol, not smoking, losing weight, and increasing sleep. The increase in life span, which added up to six years of life for healthy 40 year olds, applied even to those with chronic conditions. “The results were very clear,” said study author Ryoto Sakaniwa. “A higher number of modified healthy behaviors was directly associated with great longevity for both men and women.”

POTASSIUM-RICH FOODS IMPROVE WOMEN’S HEART HEALTH

Women who eat potassium-rich foods such as bananas and avocados could reduce the negative effects of salt in their diets, according to a study published in the *European Heart Journal*. Potassium-rich diets were linked with lower blood pressure, particularly in women who ate diets high in salt. As the consumption of potassium went up, blood pressure went down. Every gram increase in

potassium was associated with a 2.4 mmHg lower systolic blood pressure, but only in women and only in those with high sodium intake. “Potassium helps the body excrete more sodium in the urine,” said Liffert Vogt, M.D., Ph.D., of Amsterdam University Medical Centers, the Netherlands.

ADDING SALT INCREASES RISK OF PREMATURE DEATH

People who add extra salt to their food at the table increase their risk of dying prematurely from any cause, according to a study published in the *European Heart Journal*. The study of more than 500,000 men and women found that compared to those who rarely or never added extra salt, those who always added salt increased their risk of dying prematurely (before age 75) by 28 percent. “Even a modest reduction in sodium intake, by adding less or no salt to food at the table, is likely to result in substantial health benefits,” said researcher Lu Qi, M.D., Ph.D., of Tulane University.

LOSING WEIGHT CAN DOUBLE SPERM COUNT IN OBESE MEN

Obese men with low sperm counts can improve their number of sperm by losing weight. For a study published in the journal *Human Reproduction*, obese men who lost an average of 36 pounds increased sperm concentration by 50 percent and sperm count by 40 percent eight weeks after the weight loss. At the end of the 52-week trial, men who maintained their weight loss had twice as many sperm cells as before their weight loss. “The

men who regained weight lost the improvements in semen quality,” said Signe Torekov, Ph.D.

BLOOD TEST DETECTS MELANOMA

A blood test that can detect circulating melanoma cells may allow patients to avoid invasive skin biopsies, according to a study published in the journal *Advanced NanoBiomed Research*. In addition to detecting melanoma, the test can reveal whether all circulating tumor cells (CTCs) have been removed following surgery. “CTCs have the potential to pinpoint treatment resistance and recurrence, and can be a valuable biomarker to noninvasively monitor for disease progression,” said University of Michigan researcher Sunitha Nagrath, Ph.D.

SELENIUM-BASED DRUG SLOWS DEMENTIA

Sodium selenate, a form of the mineral selenium, slows brain shrinkage due to behavioral variant frontotemporal dementia (bvFTD), the second most common form of dementia in people under the age of 60, which does not have any effective treatment. Researchers at Australia’s Monash University found that sodium selenate increases the activity of an enzyme in the brain that breaks down tau, a protein that is responsible for damaging neurons. In a Phase 1 trial, most patients with bvFTD who were treated with sodium selenate showed no change in their cognitive or behavioral symptoms, and reduced rates of brain atrophy.



ONE DAILY DRINK LINKED TO COGNITIVE DECLINE

Consuming a single alcoholic drink a day is associated with higher iron levels in the brain, according to a study published in *PLOS Medicine*. Higher levels of iron in the brain have been linked to Alzheimer’s and Parkinson’s diseases, and may be a mechanism for alcohol-related cognitive decline. MRIs of 20,965 people whose average age was 55 found that those who drank more than seven units of alcohol (equivalent to about two and one-half glasses of wine) a week had higher levels of iron in the basal ganglia, structures in the brain associated with control of motor movements, procedural learning, eye movement, cognition, and emotion. “Iron accumulation could underlie alcohol-related cognitive decline,” said researcher Anya Topiwala of the University of Oxford.

INTENSE EXERCISE MAY REDUCE CRAVINGS

An animal study may offer hope to dieters who crave high-fat foods, say researchers at Washington State University. Rats on a high-fat diet who exercised intensely resisted flavored, high-fat food pellets significantly more often than rats who did not exercise more than

their regular activity. “We’re always looking for this magic pill in some ways, and exercise is right in front of us,” said Travis Brown, Ph.D.

CRANBERRIES IMPROVE MEMORY

When researchers at the UK’s University of East Anglia gave cranberries to cognitively healthy adults for 12 weeks, their memories improved significantly. The study, which was published in the journal *Frontiers in Nutrition*, found that the equivalent of a daily cup of fresh cranberries improved participants’ memory of everyday events, neural functioning, and delivery of blood to areas of the brain that support cognition — specifically memory consolidation and retrieval — compared to placebo. The cranberry group also showed a decrease in LDL (bad) cholesterol levels, which contributes to cardiovascular disease.

FOURTH COVID VACCINE CUTS DEATH RISK BY 72 PERCENT

Israeli scientists found that the fourth COVID-19 vaccine is 72 percent effective for reducing the risk of death from the Omicron variant. The study participants, with an average age of 80, also reduced their risk of hospitalization by 64 percent to 67 percent. “The study indicates that giving booster shots and raising the level of antibodies through a vaccine based on the original COVID-19 strain provides significant protection against the onset of serious illness even after infection with new variants, including those that are very different from the original, such as omicron,” said researcher Dani Cohen, Ph.D., of Tel Aviv University. □

Hearing Aids Are Now Available Over-the-Counter: Are They Right for You?

By Fran Kritz

The Food and Drug Administration (FDA) recently approved, for the first time, the sale of over-the-counter (OTC) hearing aids. The new approval applies to people with “perceived mild to moderate hearing loss.” For people who are eligible, the cost of hearing aids will be lower than prescription devices and available without the need for an exam and prescription from a hearing specialist first.

Prescription hearing aids are programmed specifically for the user while OTC devices are pre-programmed or come with limited settings, according to Patricia Johnson, a clinical audiologist with the University of North Carolina. The OTC devices will be available for purchase in stores and online beginning in mid-October. Consumers are responsible for setting up the device, including fitting and tuning the sound. The OTC hearing aids are expected to cost in the range of \$300 to \$600 each, a savings of about \$2,800 per pair, according to the FDA. Basic Medicare currently does not cover the cost of any hearing aids, but Medicare Advantage plans often cover some of the cost.

Mild-to-Moderate Hearing Loss

According to the Hearing Loss Association (HLA), which represents consumers who are hard of hearing, mild-to-moderate hearing loss includes people who have trouble understanding conversations in groups, with background noise, or when they can't see who is talking; trouble hearing on the telephone; have to turn up the volume of a television or radio loud enough for others to complain; and often ask friends and family to repeat what they have said.

“If you're not sure if OTC hearing aids are right for you, consider taking an online hearing test as a baseline or going to an audiologist for a test,” says Thomas Powers, Ph.D., an audiologist, and adjunct research professor at Ohio University.

Some health insurance plans, including Medicare Advantage, may cover all or some of a professional

hearing test. Basic Medicare does not unless there's a medical reason, such as an injury to an ear. Out-of-pocket testing fees can run \$100 to \$200.

OTC Hearing Aids Won't Work for Everyone

According to experts at the National Institute on Deafness and other Communication Disorders (NIDCD), people who have trouble hearing conversations in quiet settings, or have trouble hearing loud sounds, such as cars or trucks, noisy appliances, or loud music, should consult a hearing health professional such as an audiologist about selecting hearing aids because “these are signs that you might have more severe hearing loss and that OTC hearing aids won't work well for you.”

Consider Hearing Aids for Even Mild Hearing Loss

According to NIDCD, untreated hearing loss is linked to isolation, depression, anxiety, low self-esteem, dementia, reduced mobility, and falls. Only one in four adults who could benefit from hearing aids has ever used them. The HLA recommends asking if the OTC hearing aids you are considering need a smartphone, app, or computer to install, operate, and customize so you know what technology and skills are needed. You'll also want to ask whether the device is compatible with technology you use, such as your particular smartphone so that you can hear calls better, and listening systems, such as those at concert and lecture halls.

Returning OTC Hearing Aids

The new FDA rules don't require that OTC hearing aids be returnable, but they do require that the device packages include a clearly stated return policy — which could be that the company does not allow returns. The American Academy of Audiology (AAA) recommends selecting an OTC device that can be returned in case the one you buy doesn't work for you.

For more information on the new regulations and specifics about OTC hearing aids, read the Frequently Asked Questions section from the AAA at audiology.org. Search “consumers and OTC hearing aids.” □

Scientifically Proven Health Benefits of Tai Chi

By Vera Tweed

Do stiff joints, painful muscles, or fear of falling keep you from doing regular exercise or being more active day-to-day? Tai chi may be the exercise for you. A slow, rhythmic form of movement with controlled breathing, tai chi is a very gentle form of exercise. Yet perhaps surprisingly, it strengthens muscles, improves circulation and joint flexibility, enhances mood and mental function, and promotes better overall health.

“It doesn’t hurt, it heals,” says Patricia Lawson, a master tai chi trainer who started practicing and teaching tai chi in her 40s. That was 30 years ago, and she’s still going strong, teaching classes, training tai chi instructors, and working with patients at medical fitness centers certified by the Cleveland Clinic in Martin County, Fla.

“Tai chi activates endorphins, increases a sense of well-being, and lowers the perception of pain,” Lawson tells *Health Radar*. Her family has a history of severe arthritis at a relatively young age, but thanks to tai chi, she is the only family member not suffering from arthritis symptoms. And at one time, Lawson had herniated a disk that healed without surgery as a result of her tai chi practice. Her doctor was amazed.

Benefits of Tai Chi

Tai chi classes are a routine part of preventive healthcare in China. Its benefits have also been

studied by scientists from the United States and other countries. Published research on more than 18,000 people have found that tai chi benefits include:

- An improved mood and sense of well-being
- Pain relief
- More flexible joints
- Better balance
- Fewer falls and less fear of falling
- Better heart and lung function
- Lower blood sugar among Type 2 diabetics and those at risk for the disease
- Lower blood pressure in the general population
- Sharper thinking
- Stronger muscles
- Healthier arteries

Tai chi has been found to reduce symptoms of chronic diseases, such as Parkinson’s, fibromyalgia, heart disease, and early stages of dementia. And it can improve recovery from a stroke, even when done while sitting. In studies, tai chi classes most often lasted 30 to 60 minutes each and were done at least twice per week, for a few months or more. But benefits may be experienced more quickly.

How to Get Started

Lawson suggests starting by breathing correctly. While standing or sitting tall, put three fingers on your belly just below your navel. As you breathe in, your fingers should move forward while your shoulders and chest remain relaxed. Practice this until you feel comfortable breathing this way.

To get a sense of coordinating

slow movement with breathing, try this: Stand straight but remain relaxed with your feet shoulder-width apart, arms by your sides. As you breathe in, keep looking straight ahead as you slowly raise your arms in front of you, keeping your palms down until they are at shoulder height. Your arms should be straight but relaxed. As you breathe out, slowly lower your arms back to your sides.

A tai chi class consists of a series of movements that you will learn, one by one, so be patient. Benefits come from consistent practice — and nothing should hurt. □

Where to Find Tai Chi Classes

Tai Chi for Health Institute:
taichiforhealthinstitute.org

The site lists tai chi instructors and offers a variety of online classes, including ones designed to address arthritis, memory, energy, diabetes, osteoporosis, or recovery from an illness or stress. Basic information is free and costs for condition-specific classes start at \$10 per month.

Tai Chi Foundation:
taichifoundation.org

The site offers free online classes in basic tai chi for beginners and a list of instructors.

Health Plans

Health plans, including Medicare, may include tai chi classes among their fitness options.

Community Centers

Many community centers offer tai chi classes for older adults.

Pancreatic Stem Cells Produce Insulin

Researchers at Australia's Monash University have discovered a way to restart the production of insulin in pancreatic stem cells. The cells, taken from a patient with Type 1 diabetes, were treated with a drug called GSK-126 that is approved by the FDA for lymphomas and multiple myeloma. GSK-126 works by blocking pancreatic EZH2, an enzyme that inhibits the gene responsible for the development of insulin-producing beta cells in the pancreas, and stimulating pancreatic cells. While previous research had indicated that a diabetic pancreas was too damaged to heal, GSK-126 triggered the stem cells to develop into insulin-producing beta cells. Researchers said insulin began being produced as soon as two days after the start of treatment, and that while the technique is promising, more research is needed before it can be used on patients.

Zinc May Reverse Lung Damage

Taking zinc may reverse lung damage and improve survival for patients with a deadly age-related condition known as idiopathic pulmonary fibrosis (IPF), which causes scarring of the lungs (fibrosis), has no known cause or cure, and kills most patients or requires a lung transplant within three to five years of diagnosis. Researchers from the Women's Guild Lung Institute at Cedars-Sinai found that stem cells lining the air sacs in the lungs of patients with IPF lose their ability to process zinc, which is known to help heal damaged tissue. They found that cells from IPF patients were missing a protein called zinc transporter (ZIP8), which draws zinc into the cell. For a study published in *the Journal of Clinical Investigation*, researchers used medication and deletion of the ZIP8 gene in laboratory mice to mimic IPF. When the mice

were fed a diet that included zinc supplements, their fibrosis improved. The researchers hope to develop a clinical trial to see if the technique can improve lung function in IPF patients. "The general population is aging, and the incidence of the disease is increasing," said Dianhua Jiang, M.D., Ph.D. "We need to find a cure because we have more patients every year."

New Technique Blocks Flu

Bioengineers at UC Riverside have found a way to block one strain of the influenza virus from replicating in cells. The new technique, reported in the journal *Viruses*, doesn't rely on the immune system. Lead study author Jiayu Liao, Ph.D., previously discovered that the two most common types of flu viruses, influenza A and influenza B, need a unique protein to multiply in cells, and then infect more cells. Without the protein, the virus is completely blocked. Influenza B virus uses a cellular process called SUMOylation to modify a gene called M1, which is essential to the virus's survival. Liao found that a SUMOylation inhibitor called STE025 can completely block influenza B from replicating. His discovery could lead not only to effective ways to treat the flu, but could also apply to other respiratory agents, such as the COVID-19 virus.

Intestinal Bacteria Drives Some Colon Cancers

Clostridioides difficile or *C. diff*, a bacteria known for causing serious diarrheal infections, may also be a driving force behind colorectal cancer. Previous research conducted at Johns Hopkins University School of Medicine found that more than half of patients with colorectal cancer had bacterial biofilms — dense collections of bacteria on the colon surface — while only 10 percent to 15 percent of healthy patients exhibited the biofilms. In an animal study, the biofilm-induced colorectal tumors in 85 percent of mice compared to only 5 percent of controls not exposed to the biofilm. Recent research found that *C. diff* produces a toxin known as TedB, which appears to turn on genes that drive cancer and turn off genes that protect against cancer. The research could lead to screening for latent *C. diff* infection as a risk factor for cancer. □

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DISCOVER THE LATEST BUZZ ABOUT HONEY

PRAISED for its amazing ability to heal the body, the ancient “nectar of the gods” may just be a 21st century healing miracle — the closest thing we have to a “cure-all” for dozens of ailments from heart disease and heartburn to insomnia, low libido, fatigue, cough and cold, headaches, and more.

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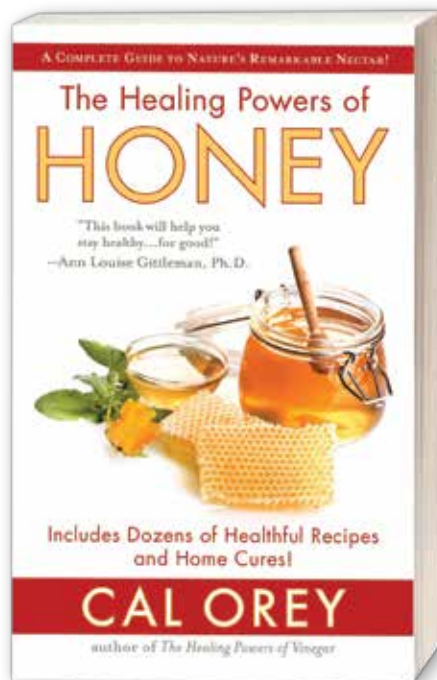
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SWEET FACT **2 MILLION**
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