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Start vetting your supplements

Use these strategies and tools to uncover risks lurking in seemingly harmless supplements.

There are plenty of good reasons to take a dietary supplement. Maybe you're deficient in a particular vitamin or mineral, such as vitamin D or iron, or you have a poor diet and your doctor recommends a multivitamin. Or perhaps there aren't many ways to treat a health problem you have, such as osteoarthritis, and your doctor says it won't hurt to try a certain supplement that has a small chance of easing symptoms.

So there you are, standing in the supplement aisle of a drugstore, savvy enough to be wary of dietary supplements yet wondering how to recognize the bad ones. Fortunately, certain strategies and online tools can help.

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Online tools enable you to investigate the ingredients, safety, and effectiveness of dietary supplements.

Be cautious about quality

The supplement industry is notorious for producing products that don't contain what they claim. "The FDA leaves it up to companies to ensure the purity and safety of their products. But there's not much incentive. It rarely penalizes manufacturers for not having the right amount of ingredients in a product," says Dr. Pieter Cohen, an associate professor of medicine at Harvard Medical School who studies supplements.

For example, recent research by Dr. Cohen and his colleagues found that 25 brands of gummies with melatonin (used to promote sleep) contained dangerously high levels—up to 347% more melatonin than what was listed on labels. Some of the brands they tested also contained the marijuana derivative cannabidiol (better known as CBD), also at levels that exceeded label claims.

What you can do: Look for supplements with certification seals from vetted independent third parties. "Most seals of approval are meaningless. But the U.S. Department of Defense [DOD] has identified several certifying organizations that do a good job ensuring supplements are labeled accurately," Dr. Cohen says.

DOD-approved certifying organizations include the U.S. Pharmacopeia (www.qualitysupplements.org) and NSF International's Certified for Sport program (www.health.harvard.edu/nsf/cps). Both test many types of supplements.

Beware of hidden ingredients

The FDA is seeing an increase in supplements that contain hidden prescription drugs, controlled substances, or untested and unstudied components. If you use these products, there's a risk that they might cause serious side effects or interact with medications you're taking. The tainted supplements are widely available and sold online from sellers on eBay or Amazon and even through large retail stores.

What you can do: Look up ingredients you don't recognize on FDA websites that can help you identify potentially dangerous products or supplement ingredients.

continued on p. 7 ▶▶

INSIDE

FIVE THINGS TO DO THIS MONTH

1 Put your hood up on a windy day. It blocks excessive noise so you can hear better. (Page 3)

2 Exercise in a pool. It's easier on your joints. (Page 4)

3 Check your water heater temperature. Set it to 120° or lower to avoid burns. (Page 5)

4 Have water instead of sugary drinks. The swap is tied to lower risks of early death. (Page 8)

5 Call a friend or loved one every day. Daily socializing is linked to a longer life. (page 8)

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ASK THE DOCTOR

by **ANTHONY L. KOMAROFF, M.D.**, *Editor in Chief*

Will we ever have a vaccine to prevent Alzheimer's disease?

Q *Vaccines are successful in preventing infectious diseases. Is it possible that scientists could make a vaccine to prevent Alzheimer's disease (AD)?*

A Although vaccines have been used primarily to prevent infectious diseases, they are starting to be tried for noninfectious diseases, including several types of cancer. That research is in its early stages.

Is it unreasonable to think about vaccines for Alzheimer's disease? I don't think so. How might they work? Vaccines to prevent a particular infection—say, the flu—typically introduce a tiny piece of the flu virus into the body. The immune system sees that little piece, recognizes that it is foreign, and starts to make cells that can recognize and kill the actual flu virus if it should enter the body.

In Alzheimer's, certain molecules are increased in the brain and can damage brain cells: amyloid-beta and tau. There are currently nine trials of vaccines for Alzheimer's under way. All of them are in people with mild Alzheimer's or with the pre-Alzheimer's condition called mild cognitive impairment. The vaccines are all designed to encourage the immune system to remove either amyloid-beta or tau deposits from the brain. Most are given by injection; one being tested at Harvard Medical School uses a nasal spray. It will be several years before we know if they will work.

One reason that these particular trials may not work is that the buildup of amyloid-beta and tau seen in Alzheimer's typically begins many decades before a person has any symptoms. Fortunately, new tests are helping to identify such younger adults in whom this buildup is starting. Vaccines given to these younger people theoretically could be more effective than vaccines given to people decades older who already have symptoms.

Finally, there's an entirely different way in which vaccines could work in preventing Alzheimer's. What causes the buildup of amyloid-beta and tau seen in people with the disease? Increasingly, studies find that infections of the brain at relatively young ages, particularly infections that linger for decades at low levels, may cause people to make more amyloid-beta, year after year, thereby raising the risk of Alzheimer's. Vaccines targeting those infections could theoretically someday also reduce the risk of the condition. Another approach—treatments that quiet the inflammation caused by such chronic, low-grade infections of the brain, without directly targeting the infection itself—is also being contemplated.

Please understand: all of this is theoretical and unproven. Also, even if vaccines work, we won't know that for a long time. Since Alzheimer's takes decades to develop, it will take decades to determine if a vaccine given to younger adults works. But with a disease as terrible as Alzheimer's, you've got to keep trying.

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By email: health_letter@hms.harvard.edu
(Please write "Ask the doctor" in the subject line.)

Because of the volume of correspondence we receive, we can't answer every question, nor can we provide personal medical advice.

Tips for getting used to over-the-counter hearing aids

Be patient during the first two weeks, and learn tricks to adjust the devices in challenging environments.

Over-the-counter hearing aids must be adjusted manually when noise around you changes.

Hearing aids are more accessible and affordable than ever, thanks to a new category of FDA-approved devices. If you (or your family members) think you have mild to moderate hearing loss, you can buy over-the-counter (OTC) hearing aids without seeing a doctor, going through hearing tests, or getting a prescription.

Scoring a pair of OTC devices is just the first step toward better hearing, however. It takes time to learn how to use, wear, and adjust them.

Know your devices

There are two types of OTC hearing aids. One comes with a few predetermined settings. The other (called self-fitting) enables you to customize settings, based on a hearing test you take on an app or a manufacturer's website. Both types have volume controls. And both allow you to toggle between settings as needed.

Prepare for an adjustment period

The first two weeks you wear hearing aids can be a little bumpy. Your voice may sound different to you, like it has a different volume or quality (an echo or tinny sound) when you speak. And soft sounds, such as running water or shoes brushing along carpet, may sound louder than normal and even a little irritating.

"The brain has to adjust. It's like being in a dark room and turning on the light. The room seems too bright until your eyes get used to it," says Sarah Hesseltine, an audiologist at Harvard-affiliated Massachusetts Eye and Ear.

To cope during the adjustment period, Hesseltine recommends wearing the hearing aids at home (where there are a lot of soft sounds) for at least a few hours per day, and longer if possible. Also, try not to fiddle with the volume too much. Hesseltine suggests allowing soft sounds to be louder than normal, so the brain will get used to them faster.

Once soft sounds don't seem as loud, try wearing the hearing aids in other environments, such as the grocery store, the car, or a noisy restaurant.

Learn to switch device settings

Unlike many prescription hearing aids that adjust the volume automatically when there's a significant change in noise around you, OTC hearing aids must be adjusted manually. For example, you might need one setting for watching TV, another for doing yard work, and one for being in a noisy environment, like a restaurant.

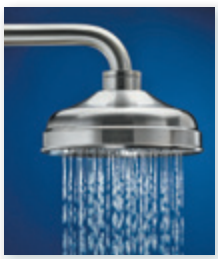
Some situations can be particularly difficult for hearing aid use.

At a restaurant or party. "Because of background noise, you probably won't get 100% clarity understanding speech. Even prescription hearing aids have this limitation. The trick is setting the hearing aid to pick up sounds in front of you, and then putting the background noise behind you. So don't sit with a wall behind you at a restaurant; sit with the loud tables behind you," Hesseltine says. "Another option for a conversation at a restaurant is having the person you're chatting with use a remote microphone. It can be placed on the table or worn on the person's lapel. The microphone will send the sound directly to your hearing aids."

On a windy day. Wind blowing over the hearing aid microphones creates excessive noise. Hesseltine suggests wearing a hood or a hat to help block the wind and reduce noise.

During a phone call. Many hearing aids have a microphone that's worn over the ear, which is easy to forget when you're on a phone call. "If you can't hear someone during a call, try shifting the phone higher, toward the hearing aid microphone," Hesseltine suggests. "If doing that creates loud feedback, such as a whistling or squealing sound, that means the ear piece doesn't fit well and isn't all the way in the ear. Try putting a different-sized tip on the part of the hearing aid that goes into your ear." (The devices should come with tips in a few sizes.)

It may take a little trial and error to learn what works best for you, so brace yourself for a learning curve. Most people (and their families) find that the improvement to their hearing is well worth the effort.



When to take out your hearing aids

Hearing aids are vulnerable. They can be easily damaged by heat or moisture, and easily lost if they fall out of your ears while you sleep. So always take out the devices when you go to bed, shower, swim, blow-dry your hair, or go to a salon. And if your hearing aids get wet from perspiration during exercise, give them a break from moisture and let them dry out.

Exercises to try in the pool right now

If you're spending more time in a pool this summer, consider doing water workouts.

Pools are ideal spots for playing, cooling, and relaxing, and they're also great for exercising. Water resistance makes the heart and muscles work hard. Our buoyancy in water takes pressure off the joints, making movement less painful than it might be on land. And exercising in water always provides a soft landing if you lose your balance. Many people swim laps to take advantage of these benefits. You can also do a series of exercises as you would in a home workout routine.

We've provided some exercises to help get you started on a water workout. You'll find even more in the Harvard Special Health Report *Aqua Fitness* (www.health.harvard.edu/af).

Like any workout, you'll need to do a warm-up beforehand (such as walking in the water), and some stretches afterward (on land).

Keep these tips in mind for the pool exercises in between.

To make an exercise easier: "Go into slightly deeper water, where there's more buoyancy and support," says Jessica Hildebrandt, a physical therapist at Harvard-affiliated Brigham and Women's Hospital, and former competitive swimmer and water polo player.

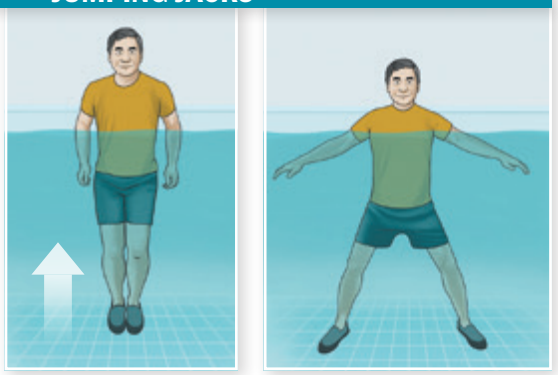
To make an exercise harder: "Create more resistance: move faster or keep your fingers together like paddles. Or while water walking, hold a kickboard vertically in front of you to create resistance," Hildebrandt says.

To jog without touching the pool bottom: Wear a pool belt in deep water. The belt is a floatation device that lets you move your arms and cycle your feet as if you're jogging through the water.

To avoid soreness: Take it easy at first. "The water supports you, so you feel good and can do more than you're used to. But you can overdo it without realizing it," Hildebrandt says. "Start with easier exercises and shorter durations, or do less than you feel up to. If you're not sore the next day, you'll know it was the right amount of exercise for you. From there you can gradually increase the intensity."

JUMPING JACKS

Stand with your feet together and your arms at your sides. Jump, separating your feet as you raise your arms out to the sides. Keep your hands below the surface. Jump, bringing your feet back together and your arms down to your sides. Repeat as many times as you can in 60 seconds.



PENDULUM

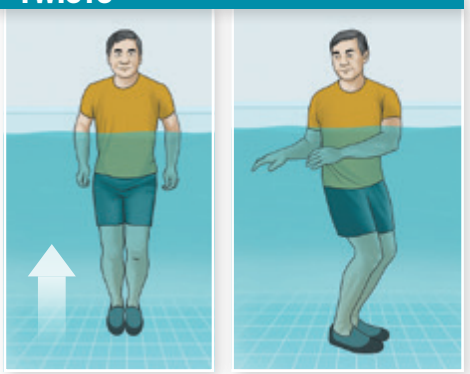
Stand on your right leg with your left leg lifted out to the side. Extend your arms diagonally down and to the right. Jump off your right foot, swing it out to the side, and land on your left foot, while swinging your arms to the left. Repeat, swinging your arms and legs to the opposite sides. Continue jumping and alternating directions for 60 seconds.

DOUBLE KICKBACKS

Stand up straight with your feet shoulder-width apart and your arms at your sides. Jump up and bend your knees, bringing both feet toward your buttocks. Lower your feet back to the pool bottom. Let your arms swing naturally as you jump. Repeat as many times as you can in 60 seconds.

TWISTS

Stand with your feet together and your arms at your sides. Jump, while twisting your upper body to the right and your lower body to the left. Land with your knees, feet, and hips pointing diagonally to the left and your arms, shoulders, and chest pointing diagonally to the right. Jump again, twisting the other way to reverse your landing position. Continue jumping and twisting in alternate directions for 60 seconds.



Exercise illustrations by Alayna Paquette

Protect your skin from serious burns

Learn how to take quick action if you're burned, and what you can do to prevent further injury or future accidents.

Avoid wearing loose sleeves when cooking. They can catch fire and cause burns.

It takes only a moment to suffer a burn at home. It can be as simple as brushing against a sizzling skillet on the stove or getting into a bath that's too hot—a particular risk for people with decreased sensation in their feet. Understanding common causes of burns can help you prevent them. And learning what to do immediately, if they happen, is crucial.

Common burn causes

"There are several common causes of burns, particularly in older people, and most are clearly preventable," says Dr. Colleen Ryan, staff surgeon at the Sumner Redstone Burn Center at Harvard-affiliated Massachusetts General Hospital and Shriners Children's Boston. Here are some examples.

Explosions. Explosions are common among people who smoke while using a home oxygen tank.

Clothes that catch fire. "This often occurs when someone wearing sleeves reaches over a flame on a gas stovetop. For years, it was the leading cause of death in women admitted to our hospital with burns. Now it occurs in men, too," Dr. Ryan says.

Hot water scalds. You can be burned by hot tap water in about three seconds if your water heater is set at 140°, or 25 seconds if it's set at 130°. But it takes nine minutes if the temperature is set at 120°. A study published online March 7, 2023, by the journal *Injury Prevention* found that from 2016 to 2018, such scalds caused more than 52,000 visits to the emergency department and killed more than 100 people.

Fires at home. These might be caused by unattended candles or carelessness while smoking.

Burn classifications

Doctors describe burns based on how deep they penetrate the skin surface.

First-degree burns are considered superficial. They involve only the top layer of skin (the epidermis), are red and painful, and usually clear up in a few days. "The epidermis can regenerate itself, so if it is injured, it can fully regenerate and doesn't scar," Dr. Ryan says. For example, a sunburn is usually a first-degree burn.

Second-degree burns look like first-degree burns initially, but then develop blisters. The burns involve both the epidermis and the deeper layer of the skin (the dermis) and are very painful while they are open and exposed to air. They take longer to heal and are replaced with scar tissue.

A third-degree burn occurs when the epidermis and dermis are destroyed. This is common in delicate areas like the back of a hand. The burnt area itself is painless because the nerves have been killed, but pain often arises from adjacent skin. "These burns heal very slowly over time, and only if they are very small and the skin can grow from the edges," Dr. Ryan says. "Otherwise, they do not close without surgery."

What to do if you're burned

There's no time to lose when you suffer a burn. For a minor burn on a small area of skin, Dr. Ryan advises running cool water over it for 20 minutes, which can help limit damage. Then apply petroleum jelly or antibiotic cream (such as Neosporin or Bacitracin), all available over the counter, and cover the burn with a bandage.

If a blister develops, don't pop it. Dab antibacterial cream on it, cover it with a bandage, and get to your doctor as soon as you can.

For a second-degree burn that's larger than a deck of cards, get to your doctor immediately or go to an emergency room. "And if you have a first- or second-degree burn on a large area of the body, perhaps from a bathing accident, don't immerse yourself in cool water. That might cause hypothermia. Stay warm and call 911 immediately," Dr. Ryan says.

Call 911 for second-degree burns to the face, hands, feet, or genitals, and for all third-degree burns. The treatment they receive in the first hours is critical.

And keep in mind that open burns, especially deep second-degree burns and all third-degree burns, are at risk for becoming infected. Your doctor may prescribe dressings and ointments to prevent infection and promote healing. Or you might be referred to a hospital burn center.

Preventing burns

These steps can help you stay safe:

- If you have an oxygen tank in your home, keep it maintained and make sure any smoking (if it must take place) occurs far from the tank.
- When cooking, use side-by-side burners rather than front and back burners. Don't wear loose sleeves near a stove. Use a microwave when possible. And consider getting an induction stove, which heats cookware with a magnetic field.
- Don't set your water heater above 120°. Consider checking the temperature of your bath water with a thermometer before getting into it.
- Be especially careful when children are near. Put an ice cube into hot soup, allow heated baby formula to cool, unplug treadmills that can cause friction burns, and turn off or block fireplaces. "Preventing even one burn," Dr. Ryan says, "is a better outcome than anything I can fix."

Time for a new knee? Ask these questions first

Gather as much information as possible to make an informed decision about a total knee replacement.

When a worn knee starts to give you trouble, nonsurgical treatments are the first line of defense. Weight loss, physical therapy, or injections may help reduce your pain. If your knee doesn't respond to those approaches, it's time to consider a joint replacement. And you'll need information to make a decision about the surgery, which is a big commitment.

Here are some questions to ask, and a sneak peek at what your doctor might say, courtesy of Dr. Antonia Chen, an orthopedic surgeon and director of research for the Division of Adult Reconstruction and Total Joint Arthroplasty at Harvard-affiliated Brigham and Women's Hospital.

Ask your doctor about the surgical steps and new parts used in knee replacement surgery.

© Jan-Otto | Getty Images

Q: What should I look for in a knee replacement surgeon?

Dr. Chen: Ideally your surgeon would be someone who is board-certified in orthopedic surgery, fellowship-trained, and a specialist in knee replacement. But that type of expert might not be available in your community. If not, look for an orthopedic surgeon who's been performing knee replacements for at least two years and make sure the surgeon you choose performs at least two knee replacements a month.

Q: What type of prosthetic is best?

Dr. Chen: The gold standard knee replacement is made of cobalt chromium with polyethylene (plastic) in between the metal pieces. Sometimes, the bone behind the kneecap will be replaced with polyethylene (see "Anatomy of a knee replacement"). There are additional materials, such as titanium or zirconium, that can be used in knee replacements. The best prosthetic will be the one your surgeon is comfortable implanting, unless you have a metal allergy, which you should discuss with your doctor.

Q: How should I prepare physically for a knee replacement?

Dr. Chen: Pre-surgery physical ability predicts your post-surgery physical ability. So work on bending, straightening, and strengthening the knee as much as possible before surgery. Physical therapy can help, and so can exercises that you can do at home.

Q: How should I prepare my home for recovery?

Dr. Chen: Remove anything that might cause you to slip and fall, such as throw rugs, floor clutter, and furniture that blocks your path. It will help to have certain types of equipment at home, including a walker and a cane. You can also consider getting a raised toilet seat and a bedside commode, but not every patient will need these.

Q: Which surgical approach will you take?

Dr. Chen: There are three main approaches. One goes around the kneecap, one goes through the middle of the quadriceps muscles, and one goes underneath the quads. There are pluses and minuses for each one, and it mostly depends on the approach your surgeon is most experienced with.

Q: Will you use robotic tools?

Dr. Chen: Some studies have shown that robotic surgery is more precise than traditional surgery. I personally use robotic tools, but robotics are not available at every hospital.

Q: What are potential surgery complications and what will you do to reduce them?

Dr. Chen: Knee replacement risks include bleeding, blood clots, and infection. We use devices to stop bleeding at the time of surgery and we may apply a tourniquet. You will likely get an antibiotic before surgery to prevent infection and a blood thinner after surgery to prevent clots.

Q: Will I have to stay overnight in the hospital?

Dr. Chen: Most people go home on the day of their surgery or stay overnight in the hospital for one night. Home health services can provide visiting nurses or physical therapists who go to a patient's home after surgery.

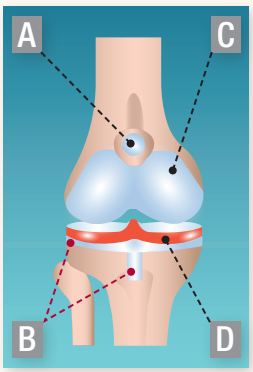
Q: How much pain will I have and how will you treat it?

Dr. Chen: The first two to six weeks after surgery will be very painful, and we have an extensive plan to treat it. We start right before surgery, giving the patient painkillers such as acetaminophen (Tylenol) and celecoxib (Celebrex), as well as spinal anesthesia. During surgery, I'll inject a number of different analgesics and anti-inflammatory medicines into the knee. After surgery, we use narcotics such as oxycodone (OxyContin) only sparingly. If necessary, we can prescribe low-level narcotics such as tramadol (Ultram). But we prefer that you use acetaminophen around the

Anatomy of a knee replacement

The knee is a hinge formed by the bottom of the thighbone (femur) and the top of the shin bone (tibia). In front of them is the kneecap (patella). The ends of the bones are cushioned by cartilage. As cartilage wears out over time, the bones rub against each other, causing pain.

In a knee replacement, the surgeon removes the damaged ends of the thigh and shin bones and replaces them with artificial parts. The prosthetic on the thighbone is made of metal (typically cobalt chromium). The prosthetic on the shin bone is made of metal (typically cobalt chromium or titanium) and has a plastic piece on top. The plastic is polyethylene, a strong, slippery material that acts as cartilage.



A: Kneecap component
B: Tibial component
C: Femoral component
D: Plastic spacer

The kneecap may also need to be lined with plastic to glide over the other two bones.

clock. It may not work well on its own, but adding a nonsteroidal anti-inflammatory drug such as naproxen (Aleve) or a nerve medication called gabapentin (Neurontin) can improve pain relief.

Q: What do you do to ward off stiffness and swelling?

Dr. Chen: These side effects can happen right after knee surgery. It's important to get right into physical rehabilitation to prevent stiffness. To reduce inflammation, I like my patients to use ice or an ice machine that circulates cold fluid around the leg.

Q: What will rehab look like?

Dr. Chen: If you are deconditioned or undergo surgery in both knees at the same time, you might need to go to an in-house rehab facility after surgery and stay for a week or two. If you're stronger, you can go home and have a physical therapist visit the home, or go to an outpatient facility for physical therapy. The rehab process can last up to three months. And it's a year for a full recovery.

Q: When will I be active again?

Dr. Chen: You might have to walk with a walker or crutches for one or two weeks, and then walk with a cane or one crutch for another two to four weeks. It can take three to six months to get you back to brisk walking, six to nine months for activities such as tennis or golf, and nine months to one year for skiing.

Q: How long will the prosthetic last?

Dr. Chen: The plastic part of the prosthetic knee will wear out in about 15 to 20 years, and you might need surgery to replace it.

Q: What if I want to wait before considering surgery?

Dr. Chen: It's your choice: you'll be limited by your pain, and the pain is unlikely to improve. The good news is that waiting won't make your knee much worse. So if you don't want to go through a major surgery and a long recovery, don't do it. Wait until you're ready.

Vetting your supplements ... from p. 1

One useful reference is the Dietary Supplement Ingredient Directory (www.health.harvard.edu/dsid), unveiled in March 2023. It enables you to quickly look up dozens of different ingredients and get basic information as well as links to research and warnings about them.

The other is the Health Fraud Database (www.health.harvard.edu/hfpd), which lists some (but not all) products that have been subject to FDA-related violations.

Go over a checklist

The DOD has a resource anyone can use to check if a supplement seems safe. It's called the Operation Supplement Safety Scorecard (www.health.harvard.edu/opss/dietary). The scorecard provides a checklist of seven questions you can answer quickly to determine if a supplement seems safe. For example:

- Is there an approved third-party certification seal on the product label? (The scorecard displays images of the seals to look for.)
- Is the label free of claims or statements that seem questionable to you?
- Are there fewer than six ingredients on the label?

If you don't get at least four "yes" answers to the questions on the scorecard, the supplement is designated too risky to take.

Do some digging

Do a little detective work if your clinician suggests that you take a supplement, especially a botanical treatment (made of plants or plant extracts).

"Be skeptical," Dr. Cohen suggests. "Ask if there's a study about it. But it needs to be a large randomized controlled trial to be credible."

You can also look up medical studies on your own by going to a reliable search engine called PubMed (www.pubmed.ncbi.nlm.nih.gov) from the National Institutes of Health (NIH).

NIH also provides fact sheets on a wide variety of dietary supplements. Check them out (www.health.harvard.edu/dsfs) and see if there's a good reason to take the supplement you're considering. If not, it's probably safer to skip the risk.

Harvard study: Ditching sugary drinks tied to reduced diabetes complications

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People with diabetes are generally advised to avoid sugary drinks to help control their blood sugar. A Harvard study published online April 19, 2023, by *The BMJ* shows that avoiding sugary drinks also is linked to dramatically lower risks for cardiovascular disease and early death. Researchers evaluated an average of 18.5 years of health data from more than 15,000 middle-age and older adults with diabetes who reported what they drank. Compared with people who drank coffee, tea, low-fat milk, or water, people who drank sugary drinks—like sugary soda, fruit punch, or lemonade—had much higher health risks: up to 20% higher for early death, 25% higher for developing cardiovascular disease, and 29% higher for cardiovascular-related death. Fortunately, replacing just one daily sugar-sweetened drink with a non-sugary one was tied to as much as an 18% reduced risk of early death and 24% reduced risk of cardiovascular-related death. Even drinking artificially sweetened beverages (like zero-sugar sodas) in lieu of sugary drinks was associated with an 8% lower risk of death from all causes and a 15% lower risk of cardiovascular-related death. This study was observational and therefore can't prove conclusively that avoiding sugary drinks will bring these health benefits in people with diabetes. But it builds on extensive evidence linking sugary drink consumption to chronic disease and early death in people without diabetes, so it's plausible.

Even a little socializing is linked to longevity

Among its many health benefits, socializing is tied to reduced risks of early death. But how much socializing might it take to live longer? Maybe just a little, suggests a large Chinese study published online March 6, 2023, by the *Journal of Epidemiology and Community Health*. Scientists evaluated the health, lifestyle habits, and self-reported social activity of more than 28,000 people (average age 89) whose survival was tracked for an average of five years or until death. Within the first five years, the more people socialized, the longer they lived. Each of the following groups lived longer than the one before it: those who socialized occasionally, monthly, weekly, or every day. People in any of these groups lived longer than those who did not socialize at all. However, after five years, it appeared that only people who socialized daily clearly lived longer than the others. This is an observational study and can't prove cause and effect. Also, the authors didn't analyze the different types of social activity people took part in. But we know there are many important reasons to socialize, including links to lower risks for loneliness and isolation, dementia, and chronic disease. So set a goal to increase your social activity, such as calling a friend or getting together with one.

Can a smart watch detect early risks for certain heart problems?

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Smart watches can do more than just check texts and emails or track your steps and heart rate. Many of the devices measure the electrical activity of your heart, similar to an electrocardiogram (ECG) that you'd get in a doctor's office. Those tests in clinical settings measure electrical activity from 12 different points on the body (on your chest and limbs), for about 10 to 15 seconds. But smart watches measure activity from just one spot (your wrist). Is that enough to detect heart problems? Possibly, suggests an analysis published online Feb. 3, 2023, by the *European Heart Journal: Digital Health*. Scientists asked 83,000 healthy people (ages 50 to 70) to undergo one-lead, 15-second ECGs that mimicked a smart watch ECG, and then followed their health for up to 11 years. After analyzing the recordings, scientists found that people whose ECGs showed a type of extra heartbeats called premature ventricular contractions were more likely to later develop heart failure; people with another type, called premature atrial contractions, were more likely to develop atrial fibrillation. Smart watches are expected to become increasingly useful in spotting early signs of heart problems.

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