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6 ways to improve and protect your vision

Eating an antioxidant-rich diet, wearing protective glasses, and controlling underlying conditions will help protect your vision.

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Wearing sunglasses helps protect your eyes from developing cataracts.

We all know how important vision is for remaining independent and enjoying the simple pleasures in life, like a colorful sunset or a grandchild's precious smile. But appreciation isn't enough to keep your vision intact. Aging increases the risk for vision loss and eye problems, including cataracts, diabetic eye disease, glaucoma, age-related macular degeneration, and dry eyes.

Adopting the following healthy habits will increase the odds that you'll protect your vision and independence as well as your view of the things that make life beautiful.

1 Get regular eye exams

"A comprehensive dilated eye exam can detect conditions you may not be aware of, because many of these problems don't have symptoms," says Dr. Matthew Gardiner, an ophthalmologist with Harvard-affiliated Massachusetts Eye and Ear Infirmary. Even if you don't have eye problems, many eye doctors recommend that you get a comprehensive eye exam every two years before age 70 and every year starting at age 70. (The U.S. Preventive Services Task Force says the evidence for this recommendation is "insufficient" to warrant its endorsement.) You'll have to go more often if you have eye problems.

2 Control underlying conditions

Chronic health problems can hurt your vision. For example, people with poorly controlled diabetes can get diabetic retinopathy—little areas of bleeding and swelling in the retina, the part of your eye that captures light and sends it to the brain via the optic nerve. "Those areas of bleeding come from abnormal blood vessels and also can cause scar tissue that could lead to retinal detachment and blindness," warns Dr. Gardiner. "Getting blood sugar down helps keep diabetic retinopathy from progressing."

People who have high blood pressure are at risk for retinal disease, too. Controlling your blood pressure helps prevent areas of bleeding and swelling in the eye.

3 Eat a healthy diet

Eating foods that are good for your heart and blood vessels also helps protect your eyes. Aim for a diet that includes minimal saturated fat and salt; a moderate amount of lean proteins, including nuts, seeds, and legumes; and plenty of fresh vegetables, fruits, and whole grains.

Dr. Gardiner says antioxidant-rich foods—like dark leafy greens, strawberries, blueberries, and walnuts—may help reduce the risk of cataracts (a clouding of the eye's lens) and age-related macular degeneration (AMD), an eye condition that causes vision loss in the macula, the part of the eye that controls central vision.

For people at a middle stage of AMD, taking a combination of antioxidants and zinc in an eye health supplement known as the

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FIVE THINGS TO DO THIS MONTH

1 Join a club that interests you. It can help you form new friendships that expand your real-life social network. (page 3)

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ASK THE DOCTOR

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

What is lupus?

Q *My daughter has just been diagnosed with lupus. What is it, and what can be done to help?*

A A healthy, young patient of mine once asked me what the chances were that she might one day develop a "terrible disease." When I asked her what she meant by "terrible disease," she surprised me: she didn't say a disease that could be fatal, but rather a disease that could attack every part of her body. By that definition, systemic lupus erythematosus (lupus for short) is, indeed, a terrible disease.

Lupus is an autoimmune disease: the immune system—designed to protect our organs from foreign microbes and substances—has somehow been provoked to attack our organs. It is estimated that 1.5 million people in the United States have lupus. It can affect people from all walks of life, and is more common in people of African, Asian, or Native American backgrounds.

Most often, lupus affects the skin, joints, and blood cells, but it also can affect the kidneys, brain, and other organs. Not only does lupus cause different symptoms in different people, but it also varies greatly in severity: in some people, the disease is mild, whereas in other people it can be severe and even life-threatening. The disease also is variable over time: in some people, it is quiet for long periods and then flares up, for no apparent reason. We don't know why the effects of lupus are so variable from one person to the next.

Lupus is more common in people who have an Asian, Native American, or African background.

The list of symptoms that can be caused by lupus is, literally, too long for this column. The most common symptoms of lupus are fatigue, initial weight loss (or weight gain, if the kidneys become damaged), fevers, aching muscles, aching and swollen joints, patchy hair loss, chest and abdominal pains, blood clots, sores inside the mouth, and rashes. The most characteristic rash is redness over the cheeks on both sides of the nose (called a "butterfly rash" because of its shape). Lupus can cause kidney failure. When it affects the brain, thinking can become confused, and people can have seizures, delusions, or hallucinations.

Fortunately, over the past 40 years lupus has become easier to diagnose (through improved testing) and to treat. New drugs help suppress the autoimmune attack on the body's organs. And historically, the most common cause of death from lupus—kidney failure—can be effectively corrected by kidney dialysis and kidney transplantation (pioneered here at Harvard Medical School and honored with the Nobel Prize in Physiology or Medicine).

While the cause(s) of lupus remain uncertain, I am intrigued by recent evidence suggesting that the disordered immune attack of lupus might be triggered, at least in some cases, by the genes in our gut microbes (collectively called our "microbiome"). Fortunately, the U.S. government has recently increased the budget for medical research. That's what we need for fundamental answers to this terrible disease.

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The new networking

Growing your real-life social network is important for health. Consider these ideas to get started.

Volunteering is a great way to meet people who share your passions and interests.

When we're young, networking can be an important strategy to get ahead in business. Making new acquaintances and building relationships can lead to career opportunities. But later in life, networking takes on new significance: you may need it to stay connected socially. "Your social network shrinks. Your children leave home, you're no longer at work, or you've moved away. And that can lead to isolation and loneliness unless you maintain or rebuild your network," says Dr. Joel Salinas, a neurologist who specializes in behavioral neurology and neuropsychiatry at Harvard-affiliated Massachusetts General Hospital.

Isolation and loneliness

Many studies have linked isolation (being cut off from social contact) with a greater chance of having a heart attack or a stroke. A study published online March 27, 2018, by *Heart* suggested that isolation was independently associated with a 25% to 32% increased risk of death among people followed for seven years who had already had a heart attack or stroke.

Loneliness (feeling sad because of a lack of social contact) also jeopardizes health. "One in six older adults reports feeling lonely much of the time over the course of a week. The effects can be worse than that of obesity or smoking," Dr. Salinas says. Research suggests loneliness puts you at risk for a faster rate of decline in thinking skills compared with people who aren't lonely, an increased risk for losing the ability to perform the tasks of daily living, and greater risk for early death.

Social medicine

Staving off isolation and loneliness becomes a crucial health strategy. "It's as important as taking medication, exercising, or eating a healthy diet," Dr. Salinas says.

Don't just look to your family for socialization. "About once a month you need to be in touch with others outside the core group of your spouse and children. That's where we see the most health benefits," Dr. Salinas says.

He advises that you diversify your "social portfolio" by filling it with people who reflect your interests. For example, you may need one person to talk to about shared creative activities like painting, reading, or gardening; another to be available to listen when you're in need of companionship or emotional support; and another to talk to about intellectually stimulating subjects, such as politics, history, science, or anything you find fascinating.

Building your network

You may naturally be good at making friends. If not, remember that expanding your social circle is similar to networking for business: it takes work to find and nurture relationships. "You have to reach out and be friendly first. When you share an activity, that's how bonds develop," Dr. Salinas points out.

Consider some of the following ideas to get started.

Make friends with your neighbors. According to a Pew Research Center report, most Americans don't even know their neighbors' names. But neighbors are folks right next door who may offer conversation, share some of your interests, or be there if you need help. Take advantage of the proximity: say hello and chat with a neighbor walking a dog, attend a community association meeting, or just knock on a door and introduce yourself.

Volunteer for a political organization. It's a big year for elections, and political parties and candidates are always looking for helpers to make phone calls or prepare mailing materials.

Join an adult sports league. If you're physically cleared to play a sport, call your parks and recreation department to find out about softball, basketball, tennis, or other leagues in your area designed for older athletes.

Get a part-time job. Last month we reported that working later in life is associated with many health benefits, and socialization is an important one.

Mentor young people. High schools are often looking for volunteers with life experience to guide students. So are nonprofit organizations such as the national group Big Brothers Big Sisters (www.bbbs.org) and the Florida group Take Stock in Children (www.takestockinchildren.org).

Join a club that interests you. It could be the local jazz club, cinema society, or model airplane group. "Members will already share your passions and speak your lingo," points out Dr. Salinas. "That could be comforting."

Take a class. Sign up for continuing education at a local college. Ask a few classmates to join you for an independent study group after class.

A few more tips

"Remember that not every interaction may be a good fit. But your options to meet people are endless: join a choir, an art class, a fitness club, a board game group. Or just ask an acquaintance to meet for coffee," Dr. Salinas says. Investing in your social network now will offer a big payoff today and help you avoid deficits in the future.

Precious metals and other important minerals for health

Make sure your diet meets the recommended mineral targets.

Gold, silver, and platinum get all the attention as the world's most precious metals. But they're more precious for the global economy than for human health. Instead, other metals and minerals (metals are one type of mineral) are more important for our health (see "What essential metals do for us"). Indeed, some of them are so important that we can't live without them. "Each one plays a role in hundreds of body functions. It may take just a very small quantity of a particular mineral, but having too much or too little can upset a delicate balance in the body," says Dr. Bruce Bistrian, chief of clinical nutrition at Beth Israel Deaconess Medical Center.

Two groups of essential minerals

Essential minerals—that is, those necessary for human health—are classified into two equally important groups: major minerals and trace minerals.

The major minerals, which are used and stored in large quantities in the body, are calcium, chloride, magnesium, phosphorus, potassium, sodium, and sulfur. The trace minerals are just as vital to our health as the major minerals, but we don't need large amounts. Minerals in this category include chromium, copper, fluoride, iodine, iron, manganese, molybdenum, selenium, and zinc.

Where do they come from?

We don't manufacture essential minerals in the body. We get them from our diet. The minerals come from rocks, soil, and water, and they're absorbed as the plants grow or by animals as the animals eat the plants.

Fresh foods aren't our only source of dietary minerals, however. Some processed foods, like breakfast cereal, may be fortified with minerals. And if you walk into any drugstore or look online, you'll see endless options for mineral supplements in the form of pills, powders, and chewables.

We get minerals from food. Peppers contain calcium, magnesium, and potassium.

Gold-medal sources of dietary minerals

- **Calcium:** Yogurt, cheese, milk, tofu, sardines, salmon, fortified juices, and leafy green vegetables such as broccoli and kale (but not spinach or Swiss chard, which contain binders that lessen absorption).
- **Iron:** Red meat, cooked soybeans, pumpkin seeds, cooked lentils, ground turkey, and fortified bread and breakfast cereals.
- **Magnesium:** Almonds, green vegetables such as spinach and broccoli, soybeans, peanut butter, sunflower and other seeds, halibut, whole-wheat bread, and milk.
- **Potassium:** Raisins, baked potatoes (with the skin), tomatoes, cooked black beans, plain low-fat yogurt, bananas, and spinach.

Easy to obtain

Dr. Bistrian says that when you eat a healthy diet that includes a variety of vegetables, beans, fruits, whole grains, lean protein, dairy products, and unsaturated fats (like olive oil), you're likely consuming all the healthy minerals you need. You probably don't need to pay attention to your daily intake.

For example, adequate intake of manganese is 1.8 milligrams (mg) per day for women and 2.3 mg per day for men. It's fairly easy to meet those goals with half a cup of cooked spinach (0.84 mg manganese), half a cup of cooked brown rice (1.07 mg manganese), and an ounce of almonds (0.65 mg manganese). The same is true for many dietary minerals, like chromium, copper, molybdenum, sodium, and zinc; eating a healthy diet should cover your needs.

Not as easy

But some minerals are harder to obtain in the right amounts. For example:

Calcium. Deficiency is common in older adults, especially in women and in people who eat few dairy products. A lack of calcium in the body increases the risk for brittle bones and fractures.

Iron. Women lose a lot of iron when they pass menstrual blood, and their bodies can become deficient in iron. Another cause of iron deficiency is less well known. "Obese individuals, especially premenopausal women, have a high risk for iron deficiency, in part because severe obesity is associated with low-level inflammation, which reduces iron absorption and use by the body," Dr. Bistrian says. Low iron levels can lead to iron-deficiency anemia. In this condition, there are too few red blood cells, and the red blood cells are too small. That makes it harder for the blood to carry oxygen to organs.

Magnesium. "Some drugs, like diuretics to treat blood pressure, cause you to excrete magnesium in urine.

And magnesium also is commonly lacking in people with diseases that cause diarrhea," Dr. Bistrian says.

Potassium. Most older adults take in only about half to three-quarters of the potassium they should, according to the Department of Agriculture. A low-potassium, high-sodium diet is thought to contribute to high blood pressure.

Pay attention to intake

If you fall into any of those high-risk categories, you may want to make a concerted effort to consume enough healthy minerals (see "Gold-medal sources of dietary minerals").

These are the recommended targets for the minerals in which people are most likely to be deficient:

- **Calcium:** Men need 1,000 mg per day until age 70, and 1,200 mg after that. Women ages 51 or older need 1,200 mg of calcium per day.
- **Iron:** 8 mg per day for adult men and for women starting at age 50 (or whenever menstruation ends).
- **Magnesium:** 420 mg per day for men 31 or older, and 320 mg per day for women 31 or older.
- **Potassium:** 4,700 mg per day.

Is diet enough?

Essential minerals are most potent when they come from food. But if you're struggling with deficiencies, you may need to take supplements. If so, use caution: ingesting too much of a mineral supplement can be harmful. For example: "If you get too much supplemental iron, you can overwhelm your ability to regulate iron. This creates oxidants called free radicals, which may accelerate heart disease and liver disease," says Dr. Bistrian.

Another problem: taking too much calcium in a daily supplement. That's been linked to kidney stones and possibly cardiovascular disease. Dr. Bistrian recommends getting as much calcium as you can from food and taking a low-dose supplement only to reach the rest of your goal. To help your body absorb the calcium, add a vitamin D supplement of between 600 and 800 international units.

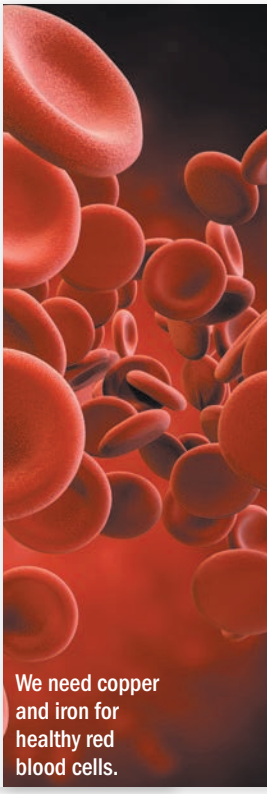
But note: taking calcium supplements to prevent falls and fractures is hotly debated. In April, the U.S. Preventive Services Task Force released new guidelines saying there is not enough evidence to support this practice. "But the new guidelines apply to generally healthy adults without known osteoporosis or a high risk of fractures or falls. They do not override the Institute of Medicine guidelines about calcium and vitamin D intake," says Dr. JoAnn Manson, chief of preventive medicine at Harvard-affiliated Brigham and Women's Hospital. "The new guidelines acknowledge inconsistent research and emphasize that it's important to go beyond supplements to prevent falls and fractures by encouraging physical activity and addressing disorders related to balance, vision loss, and medication side effects."

The bottom line: Your individual health will determine your essential mineral needs. Work with your doctor to develop targets for dietary minerals that will enrich your health.

What essential metals do for us

Many metals are used to make strong and durable everyday objects, like copper pipes or iron skillets. But they don't form such strong and durable objects in our bodies. Instead, many essential metals are needed to activate enzymes—molecules with important jobs in the body. And metals have many other essential roles as well. For example:

- **Calcium** builds bones and teeth; activates enzymes throughout the body; helps regulate blood pressure; and helps muscles to contract, nerves to send messages, and blood to clot.
- **Chromium** helps maintain normal blood sugar levels and helps cells draw energy from blood sugar.
- **Copper** assists with metabolizing fuel, making red blood cells, regulating neurotransmitters, and mopping up free radicals.
- **Iron** helps make hemoglobin (the oxygen-carrying chemical in the body's red blood cells) and myoglobin (a protein in muscle cells). Iron is essential for activating certain enzymes and for making amino acids, collagen, neurotransmitters, and hormones.
- **Magnesium**, like calcium, builds bones and teeth. It also helps to regulate blood pressure and blood sugar and enables muscles to contract, nerves to send messages, blood to clot, and enzymes to work.
- **Manganese** helps form bones and helps metabolize amino acids, cholesterol, and carbohydrates.
- **Molybdenum** activates several enzymes that break down toxins and prevents the buildup of harmful sulfites in the body.
- **Potassium** balances fluids in the body, helps to maintain a steady heartbeat and to make muscles contract, and may benefit bones and blood pressure.
- **Sodium** balances fluids in the body, helps send nerve impulses, and helps make muscles contract.
- **Zinc** helps blood clot, helps make proteins and DNA, bolsters the immune system, and helps with wound healing and cell division.



We need copper and iron for healthy red blood cells.

The benefits and risks of multigenerational fitness parks

Playful exercise is not just about fun and games.

One new exercise trend can make you feel like a kid again. Multigenerational fitness parks are cropping up across the United States. These parks typically include a large child-focused structure with places to climb, slide, swing, hang, and jump. There may also be walking paths and places for interaction between older and younger people, such as seating and picnic tables painted with tabletop games (like checkers). Sounds like a regular park, right?

Exercising at a multigenerational fitness park makes workouts more like playtime.

What's different is that the playground equipment is often adult-friendly: swings are sturdy and roomy; slides are wide, with gentle slopes; and seesaws have ergonomically designed seats that are easy to sit on. The equipment makes it possible for adults to play alongside their kids or grandkids or other children.

A recent surge

Multigenerational fitness parks have been gaining popularity around the world for the past decade. In the United States, the trend is being driven by local government parks and recreation departments as well as organizations such as the Trust for Public Land (www.tpl.org) and nonprofit playground builder KaBoom (www.kaboom.org), which has teamed up with large health-related companies to create almost 60 multigenerational parks across the country.

"A lot of older people are often caregivers for children. They're spending time at playgrounds, and they need an opportunity to be active alongside the kids they're with," says Lindsay Adeyiga, KaBoom director of corporate partnerships.

Not just kid stuff

Near the playground, you'll often find large, colorful fitness equipment designed for late teens and adults. That includes ergonomically shaped bars to hold on to for squats or modified wall push-ups; leg presses and recumbent bicycles to build leg, hip, and core muscles; an overhead press to build shoulder and arm strength; and even elliptical or cross-country ski machines for a total body workout.

When used properly, the equipment can help you improve balance, strength, flexibility, range of motion, and coordination. To assist you with that, signs with instructions and illustrations are often posted near each exercise station.

Benefits

Multigenerational fitness parks are free, and you can visit them on your own schedule. And there's more.

- The exercise machines resemble playground equipment; if you dislike exercising, you may feel like you're just playing, not working.
- You can exercise with your friends, kids, or grandkids. Being with others helps stave off loneliness and depression, which are associated with chronic disease.
- Exercising with other people is a motivator. "You get a healthy sense of competition if you see other people doing a workout," says Madhuri Kale, a physical therapist at Harvard-affiliated Brigham and Women's Hospital.
- There's no one judging you or telling you which machines or exercises you should try, or how long to exercise. You can play, just like a kid.

Playground risks

But some of those benefits can wind up being risks. If you're exercising without expert supervision, you may do so incorrectly and hurt yourself. "My concern is that it's so inviting, someone might be tempted to jump onto the equipment and play without warming up, and injure a muscle," says Kale.

If you're caught up in the spirit of playtime or competition, you may overdo it and risk muscle injury. In addition, it may be tricky to get on and off playground equipment, which can increase your risk for a fall.

What you should do

"Stay away from playground equipment or outdoor exercise machines if you have balance problems and can fall, or if you've had surgery anywhere along your torso within the last 12 weeks, because you could rupture an incision," warns Kale.

She recommends that you get your doctor's okay first. Once you're at a park, start by warming up. "Even just a short brisk walk will help get the blood pumping and muscles primed," Kale says. Then, be mindful of the workout you're getting, and don't do more than you would at a gym.

So pack a few water bottles, wear sunscreen, and enjoy the unbridled joy of outdoor playtime—the original workout for all of us.

Common summer skin rashes

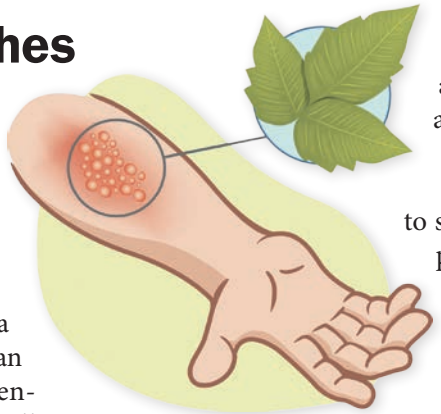
What to do about prickly heat, poison ivy, and other uncomfortable skin reactions.

Sunburn is a big risk in the summer. You know the rules: seek the shade, wear protective clothing, and use a broad-spectrum sunscreen (with an SPF of at least 30). But sunburn isn't the only summer skin problem.

Plant-related rashes

Many people are allergic to urushiol, an oil found in poison ivy and poison oak. Exposure occurs when you touch the plant directly, maybe while gardening, or indirectly, by touching an object that's picked up the oil (like a shoe). You can spread the oil wherever you touch your body until the oil is washed off. Two to 10 days later, the affected skin develops a red, itchy, blistering, oozing rash. It's not contagious, though you may feel like it's spreading. "The allergic reaction continues to unfold even after you've washed off the oil," says Dr. Jason Frangos, a dermatologist at Harvard-affiliated Brigham and Women's Hospital.

The best treatment: a prescription-strength topical steroid, and an oral steroid for extreme cases. "An over-the-counter hydrocortisone treatment is too weak to help," Dr. Frangos notes. The rash may last for several weeks.



Contact with urushiol oil on poison ivy can cause a blistering, itchy, oozing rash.

Prickly heat

When you perspire a lot, your clothing or even the material of a chair you're sitting on can block some of the openings in your skin that allow sweat to escape. This causes the ducts that carry sweat to the skin to become inflamed, creating a rash of small itchy bumps wherever the material touches you. It's called prickly heat, because you feel a prickly sensation as the bumps burst and sweat is released. But don't worry. "The best remedy is to let your skin breathe. Wear loose clothing, and make sure your skin is dry and cool," says Dr. Frangos. For immediate relief, try cool compresses or an over-the-counter hydrocortisone cream.

Sun allergy

Sometimes the immune system mistakenly attacks as "foreign" components of skin that have been damaged by sun exposure. "Often during the first sunny days of the season, some people break out in an itchy rash on skin that's been exposed to the sun, like the face, ears, and neck. That reaction may lessen as summer wears on, though some people may need to stay carefully sun-protected all summer long," Dr. Frangos says.

Side effects from your medications

Certain medications can make some people sensitive to the sun's radiation, resulting in immediate sunburn. Prime suspects: certain antibiotics, thiazide diuretics, contraceptive pills, antihistamines, and nonsteroidal anti-inflammatory drugs like ibuprofen (Advil). "They lower your threshold to burn. It's best to seek the shade, wear sunscreen, and work with your doctor to see if an alternative treatment is available," Dr. Frangos advises.

When should you see a doctor?

Contact your doctor if one of these rashes persists and prevents you from sleeping, working, or relaxing. But it's different for poison ivy. "In most cases," says Dr. Frangos, "it's worth contacting your doctor just to get a prescription-strength medication that will improve your symptoms."

Protect your vision ... *from p. 1*

AREDS formulation reduces the risk for progression of the disease.

4 Stop smoking

"After genetics, smoking is the No. 1 risk factor for AMD," says Dr. Gardiner. "Smoking is also associated with cataract progression. We advise everyone to quit."

5 Use eye drops

Using artificial tears can relieve the gritty feeling of dry eyes. "The drops will also let you see better if you have very dry eyes, because a dry eye surface makes things blurry," says Dr. Gardiner. But beware: "Drops that 'get the red out' will make the eyes less red, but can make them worse in the long term from a rebound effect when the drops wear off," Dr. Gardiner says. He recommends using preservative-free artificial tears as often as you need them or artificial tears with preservatives no more than six times per day.

6 Use eye protection

Two kinds of glasses can protect your eyes. Sunglasses filter out the sun's ultraviolet (UV) rays. UV rays increase the risk for cataract formation and cancer on the eyelids. Make sure a pair of sunglasses has UV protection.

Wear safety glasses to prevent injury when you're doing work around the house. "Most people ignore this risk," Dr. Gardiner explains, "but we commonly see people who've suffered scratched corneas from gardening, working outside, or drilling, which can cause shards of metal to fly into the eye. Safety glasses can prevent all of these injuries."

Exercise still the best approach to prevent falls


© Steve Debenport | Getty Images

Regular exercise in older adults offers powerful protection against falls. That's the conclusion of the U.S. Preventive Services Task Force (USPSTF), published online April 17, 2018, by the *Journal of the American Medical Association*. Task force members reviewed the latest evidence (about 20 studies) and said there was enough to confirm that exercising, muscle strengthening, and improving balance could help prevent falls in high-risk older adults. Most people in the studies exercised three times a week. The benefit remained the same whether people performed individual routines, participated in exercise classes, or underwent physical therapy. The USPSTF also recommended that doctors offer additional measures to prevent falls, depending on a person's risks (like getting an eye exam if you have poor vision). And, as we told you on page 5 (see "Precious metals and other minerals important for health"), the task force found that taking vitamin D did not prevent falls in older adults, so it is recommending against taking a supplement just for that purpose. (Vitamin D is important if you have osteoporosis or vitamin D deficiency.) The takeaway: Falls are the leading cause of injury and injury-related death in older adults. If you're not active, try walking a little each day (if your doctor says it's okay), and build toward walking at least 20 minutes per day.

Higher vitamin D levels linked to lower risk for diabetes

Vitamin D is an essential vitamin; low levels are associated with poor bone and muscle health and other chronic conditions, such as heart disease and cancer. Now, a study published online April 19, 2018, by *PLOS One* has tied higher vitamin D levels to a lower diabetes risk. Researchers followed 900 older adults (average age 74) for 12 years, checking their vitamin D and blood sugar levels during clinic visits. Compared with people whose blood levels of vitamin D were below 30 nanograms per milliliter (ng/ml), people with vitamin D levels of 30 ng/ml or more had one-third the risk for developing diabetes, and people whose D levels were 50 ng/ml or more had one-fifth the risk. This study does not prove that taking vitamin D supplements to raise blood levels of vitamin D would reduce the risk of diabetes, although that is possible. The Institute of Medicine maintains that a blood level of 20 ng/ml or higher is sufficient for 97% of the population. Other authorities think that levels higher than 20 ng/ml are better for health. Large studies are under way to help resolve these differences of opinion.

Vegetable intake tied to better artery health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Vegetables are the bedrock of a healthy diet. They're loaded with vitamins and minerals essential for health, as well as antioxidants (which protect your cells from damage). An observational study published online April 4, 2018, by the *Journal of the American Heart Association* suggests that eating vegetables is linked to better health of the carotid arteries (in your neck). Researchers looked at ultrasound images of the carotid arteries in about a thousand women (ages 70 or older) and evaluated survey information about what the women ate for a year. Women who said they ate three or more servings of vegetables per day had less thickening of the walls of the carotid arteries, compared with women who said they ate less than two servings per day. Cruciferous veggies—like cabbage, broccoli, and cauliflower—were associated with the strongest benefit. The carotid arteries supply blood to the brain. Thickened walls of the carotids can be a sign of plaque buildup, which paves the way for stroke.

What's coming up:

- How safe are alternatives to prescription sleep aids?
- Easy upper-body boosters to try at home
- Why you should learn bystander CPR
- Are you missing these signs of mental illness?