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Can supplements save your sex life?

They'll tempt you with their marketing promises, but beware the dangers hidden within.

It's February—time to think about roses, chocolates, sweethearts, and romance. And if those sentiments bring you to a certain drugstore aisle stocked with pills and potions promising to boost your sex life, you may want to think twice before buying any. "Most are a phenomenal waste of money, in my opinion," says Dr. Michael O'Leary, a urologist at Harvard-affiliated Brigham and Women's Hospital.

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Taking a supplement is not a reliable or safe way to boost sexual function.

Unicorn juice?

With a few exceptions, most supplements for sexual function haven't been studied scientifically. At best, says Dr. O'Leary, they have a placebo effect (a beneficial result from an inactive treatment).

"That's not trivial in itself," he notes. "For example, when researchers did clinical trials for the prescription medication sildenafil [Viagra], the placebo response was about 30%. Which tells you that the most important sex organ you have is your brain. In men, the brain controls the stimulus to get blood flow to the penis, and furthermore, it controls orgasm and ejaculation. That's why a lot of people with normal vascular function still have sexual dysfunction."

But what about the claims that over-the-counter supplements can increase your libido or sexual endurance? They are simply marketing promises designed to sell you a bottle of pills, and nobody's checking in advance to make sure they're accurate. For example, a 2015 review of top-selling supplements for men's sexual health, published in *The Journal of Sexual Medicine*, found little or no evidence to support claims they could improve aspects of sexual performance.

Risky business

While the FDA has the responsibility to approve the use of any conventional pharmaceutical and to monitor how it is manufactured, the FDA has no such responsibility with regard to supplements. That means unscrupulous companies can sell any products they like, and the supplements won't be pulled from the shelves until and unless the FDA proves they're unsafe. So when it comes to supplements, buyer beware!

Some sexual function supplements may contain potentially dangerous impurities or small amounts of hidden pharmaceutical drugs—like traces of PDE5 inhibitors, medications in the same class that includes prescription erectile dysfunction drugs like Viagra. This can produce dangerous, even life-threatening, reactions.

A few exceptions

Popular sexual performance supplements often contain a blend of ingredients (sometimes dozens of them). Some of the best-selling include DHEA (short for dehydroepiandrosterone, an adrenal hormone), ginkgo biloba, fenugreek, ginseng, horny goat weed, L-arginine, maca, tribulus, yohimbine, and zinc.

Dr. O'Leary says most of those won't help your love life. But there may be a few exceptions.

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ASK THE DOCTOR

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

Can fish oil stave off heart disease?

Q *I'm taking fish oil supplements to keep me from getting heart disease, because my doctor said they may help, though it's controversial. I hear new studies come to different conclusions. What's the truth?*

A In these pages, the best we can promise you is a balanced assessment of sometimes different study results: the "truth" usually is elusive. Your question likely was prompted by two important new studies published in November 2018, and they do seem to point in different directions. I'll do my best to give you my current "bottom line" and resolve the confusion. I reserve the right to change my mind as new studies are reported.

A large (nearly 13,000 people) randomized trial, based here at Harvard Medical School, tested the cardiovascular benefits of one particular formulation of fish oil supplements (which contain high levels of omega-3 fatty acids). "Cardiovascular benefits" included lower rates of any diseases that result from atherosclerosis, primarily of the arteries of the heart or brain. After following people for an average of more than five years, there was no clear benefit in the total of all cardiovascular problems. The people receiving fish oil did have lower rates of some types of heart problems, but these results were not as statistically strong as those for the total of all cardiovascular problems. Because this was the largest study of its kind, many doctors who once recommended fish oil supplements to protect against heart disease are no longer doing so.

Eating fish at least twice per week may protect your heart.

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Yet, I don't think the question is settled, in part because "fish oil" is not one chemical but a complex mix of chemicals, and different fish oil pills have different mixes of those chemicals. This study tested just one particular mix.

For example, another study based here at Harvard Medical School, and led by Dr. Deepak Bhatt, editor-in-chief of our sister publication, the *Harvard Heart Letter*, tested one particular component of fish oil, called icosapent ethyl. This randomized trial of over 8,000 people followed for five years found a 25% reduction in total cardiovascular problems, although people given the supplement also had a 1% higher risk of developing a particular heart rhythm abnormality (atrial fibrillation or flutter). The people in this study, unlike the first study, had one or more risk factors for cardiovascular problems.

So what's my current bottom line? At least two meals of fish (not fish oil supplements) per week appear to protect people without known heart disease from getting it. On the other hand, most available fish oil supplements don't clearly do so. The particular fish oil component called icosapent ethyl may protect against getting heart disease in people with risk factors for heart disease, but its value in people without risk factors is uncertain.

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Easy ways to adapt exercises when you have arthritis

Don't miss out on exercise benefits. Use these shortcuts to avoid overloading arthritic joints.

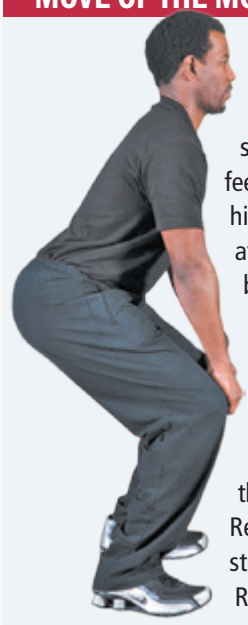
You might think that exercising would be harmful when you have osteoarthritis, a degenerative wearing away of cartilage in the joints. In reality, exercising is one of the most helpful strategies for living with the condition. "Arthritic joints like movement. The pain and stiffness tend to get better once you get going," says Clare Safran-Norton, clinical supervisor of rehabilitation services at Harvard-affiliated Brigham and Women's Hospital.

But because you have arthritis, you may need to exercise differently to avoid injury and pain.

How exercise helps

There are several aspects of exercise that help you feel better when you have arthritis. One is repetitive motion. As you move your arms or legs back and forth, your body pumps a natural lubricant called synovial fluid into the joints. That's the "grease" that makes it a little more comfortable to move.

MOVE OF THE MONTH: SQUAT



Movement: Modify a squat by standing up straight with your feet hip-width apart, hinging forward at your hips, and bending your knees to lower your buttocks only six inches. Place your hands on your thighs for support. Return to the starting position. Repeat 10 times.

Another aspect is muscle strengthening. The stronger your muscles, the better they're able to support your joints and absorb the pressure you place on them. That helps reduce arthritis pain.

Exercise risks

As helpful as exercise is for osteoarthritic joints, it can also lead to injury if you're not careful. For example:

- Lifting too much weight overhead can irritate arthritic shoulder joints or even lead to a tear in the rotator cuff (the group of tendons that helps you raise and rotate your arm).
- Running or walking aggressively on pavement places a lot of force on arthritic knees and hips, which may worsen pain.
- Doing deep squats increases pressure on arthritic knees, which can also make pain worse.

In addition, says Safran-Norton, "exercising with tight muscles may limit motion in your joints, which can create abnormal wear patterns on the joint surfaces and possibly lead to degenerative changes."

Adapting exercise

You can avoid the risks by adapting exercise to your needs and making sure you don't place excessive force on your joints. That may mean ditching high-impact classes that include a lot of jumping and opting for low-impact classes or trying a pool aerobics class. "The water makes your body more buoyant, and the warmth of the water may make your muscles relax so that you can move with greater ease," Safran-Norton explains.

Other good class choices are tai chi and yoga, both of which involve movements that gently stretch and strengthen your muscles.

At the gym, Safran-Norton suggests using a stationary bicycle or elliptical machine for low-impact aerobic conditioning. When using dumbbells or using weight machines, try lighter weights with more repetitions.

You can also modify body-weight exercises. For example, modify push-ups by leaning against the wall instead of doing them on the floor. Modify squats by lowering your body only slightly (see "Move of the month").

Other tips

Safran-Norton advises warming up the muscles before exercising. Try a few minutes of marching in place, and then static (30-second) stretches of the shoulder, arm, hip, and leg muscles. (People who do not have arthritis are advised to stretch *after* working out.)

When strengthening muscles, pay special attention to the ones that support your arthritic joints. If you have knee arthritis, Safran-Norton recommends that you focus on the quadriceps (in the fronts of the thighs), the hamstrings (in the backs of the thighs), and the gluteal muscles (in the buttocks). For hip arthritis, she recommends strengthening those same muscle groups as well as the stomach muscles.

Start slowly for each workout session; don't push your body if an exercise is painful; and cut back on activity if your joints become warm, red, or painful. But don't forgo exercise and lose out on its benefits.

For more information, check out the Harvard Special Health Report *Joint Pain Relief Workout* (www.health.harvard.edu/JPRW).

Grief can hurt—in more ways than one

Stress and depression may lead to new health issues or intensify the symptoms of existing conditions.

See your doctor when you're grieving to make sure your health isn't going unchecked.

We tend to think of grieving as an emotional experience, and it is—fraught with intense sadness, profound loss, and psychological pain. But grief has a physical side that sets us up for a number of health risks. "Most of these side effects are the result of emotional distress responses," explains Dr. Maureen Malin, a geriatric psychiatrist with Harvard-affiliated McLean Hospital. Whether you're grieving the loss of a loved one, a job, a home, or a beloved pet, it's important to understand how the process puts your health in jeopardy.

Stress and grief

Grieving takes a toll on the body in the form of stress. "That affects the whole body and all organ systems, and especially the immune system," Dr. Malin says. Evidence suggests that immune cell function falls and inflammatory responses rise in people who are grieving. That may be why people often get sick more often and use more health care resources during this period.

But why is stress so hard on us? It's because the body unleashes a flood of stress hormones that can worsen many existing conditions (such as heart failure or diabetes) or lead to new ones (such as high blood pressure or heartburn). Stress can also cause insomnia and changes in appetite.

Extreme stress, the kind experienced after the loss of a loved one, is associated with changes in heart muscle cells or coronary blood vessels (or both) that prevent the left ventricle from contracting effectively—a condition called stress-induced cardiomyopathy or broken-heart syndrome. The symptoms are similar to those of a heart attack: chest pain and shortness of breath.

Depression and grief

Intense feelings of sadness are normal when you're grieving. But some people become depressed. Up to 50% of widows and widowers have depression symptoms during the first few months after a spouse's death. (By the one-year mark, the proportion is down to 10%.)

Depression symptoms include extreme hopelessness, insomnia, loss of appetite, suicidal thoughts, persistent feelings of worthlessness, and marked mental and physical sluggishness.

Dr. Malin says people who are depressed often isolate themselves and withdraw from social connections, and they often stop taking care of themselves properly. "You're not as interested in life. You fall down on the job, miss doctor appointments, stop exercising, stop eating properly. All of these things put your health at risk," she explains.

Picking up the pieces

It may seem impossible to think about maintaining good health when it's difficult to simply get through each day. But Dr. Malin says it's okay to just go through the motions at first ("fake it till you make it").

That may mean walking for five minutes every day, and then gradually increasing the amount of time you walk. And even if you don't feel like eating, go ahead and eat three healthy meals per day anyway. Your body needs calories to function, even if you're not hungry. Eating too little may add to fatigue.

And don't forget about social connections, which are crucial to good health. Stay in touch with friends and loved ones. Try to get out of your house and spend time with others, even if it's to talk about your grief.

Remember this shortcut

A good way to stay on top of your health when you're grieving: "See your doctor, especially if symptoms worsen, and get back to a healthy routine as soon as possible," Dr. Malin suggests. That way, you can just follow your doctor's directions, putting one foot in front of the other until you develop your own routine.

In time—and there is no standard period of grief that applies to everyone—the sun will come out again, and you'll feel a little stronger each day. But you'll need a foundation of good health in order to get there. Give yourself that advantage. Your loved ones would want that for you.

Working with grief support

Some people may feel they need tools or guidance to navigate a period of grief. Two approaches can help.

- **See a grief counselor.** This is a specialist who is trained to help you make sense of your feelings of loss. Grief counselors help people to understand that there are many ways to express and come to terms with grief. They are particularly attuned to common reactions to grief, whether these reactions are physical, emotional, or cognitive.
- **Join a grief support group.** Such groups are typically led by a counselor who encourages members to share their feelings and experiences. Being with others, expressing yourself, realizing that you're not the only one going through a particular experience, and learning from others can be especially helpful.

Fill up on phytochemicals

Eating a varied diet of colorful plant foods may have benefits that go beyond the power of vitamins and minerals.

Whenever you bite into a juicy red apple or crunch a mouthful of dark, leafy greens, you consume more than just vitamins, minerals, and fiber. You also get a power-packed bite of plant substances called phytochemicals. They're not known to be essential for health, like vitamins and minerals, but they may go a long way toward keeping us healthy.

Flavonoids in berries may help you fight inflammation.

"We're still just learning about them. The science is ongoing. But they may help fight cancer and heart disease," says Debbie Krivitsky, director of clinical nutrition at the Cardiovascular Disease Prevention Center at Harvard-affiliated Massachusetts General Hospital.

What are they?

Phytochemicals are literally plant (phyto) chemicals: compounds in plants (fruits, vegetables, whole grains, nuts, seeds, and legumes) that contribute to their color, taste, and smell. They give carrots their vibrant orange hue, Brussels sprouts their bitter taste, and hot peppers their searing bite. Phytochemicals are found in all edible parts of a plant, especially the skin or peel.

Superpowers

Scientists estimate there are more than 5,000 phytochemicals, and we're only beginning to understand what the compounds may do for human health. "The most studied are probably the carotenoids, from beta carotene to lycopene in tomatoes. Also, flavonoids have been studied much more in the last 10 years," says Eric Rimm, professor of epidemiology and nutrition at the Harvard T.H. Chan School of Public Health.

So far, the evidence indicates that phytochemicals have promising benefits. For example:

- Carotenoids in red, orange, yellow, and green plants (cooked tomatoes, carrots, squash, and broccoli) may inhibit cancer growth and cardiovascular disease, and boost immunity.
- Flavonoids in berries, apples, citrus, onions, soybeans, and coffee may fight inflammation and tumor growth.
- Anthocyanins in berries and red wine are associated with lower blood pressure.
- Resveratrol in red wine, grapes, dark chocolate, and peanuts is associated with longevity in some animals.
- Proanthocyanidins and flavanols in grapes, apples, cocoa, and red wine are linked to better function of the lining of the arteries and reduced blood pressure.
- Sulfides and thiols in onions, garlic, leeks, olives, and scallions may help decrease "bad" LDL cholesterol.
- Isothiocyanates (sulforaphane) in cruciferous vegetables such as broccoli, cabbage, and kale may help protect us against cancer and cardiovascular disease.
- Quercetin in apples, onions, and citrus fruits may help decrease inflammation and blood pressure.
- Terpenes in cherries and citrus fruits may help slow cancer cell growth and fight viruses.
- Lutein and zeaxanthin in dark, leafy greens are linked to eye health.

Lutein in kale is associated with better eye health.

The benefits aren't yet conclusive. They have been derived from associations between people's diets and health outcomes (which does not show a direct cause and effect), and from laboratory studies of human cells or lab animals (resveratrol, for example, has been shown to help prevent cancer and heart disease in lab mice, but at levels of consumption much higher than found in a human diet).

One thing we do know about phytochemicals: "Almost always, benefits are found only when the phytochemical is consumed in food and not pill form," Rimm points out.

What you should do

With so many phytochemicals, it could be overwhelming to select specific compounds to try to protect your health. But you don't have to. Most plant foods each contain dozens of phytochemicals (for example, a carrot has more than 100).

You should, however, try to eat a varied diet. Krivitsky recommends "eating a rainbow"—many kinds of colorful fruits, vegetables, legumes, nuts, and seeds—in order to scoop up as many different phytochemicals as possible. "They all do different things and they complement each other. So one might block a carcinogen [something that causes cancer], and another might interfere with cancer cell replication."

At a minimum, she advises that you aim for five to nine servings of fruits and vegetables each day.

What if you don't like red apples or berries? "Choose another red food, like watermelon or red peppers," Krivitsky suggests. "If you're not a lover of kale or broccoli, try lettuce or artichokes. Find foods in each color category and include something from each. The more kinds you eat, the more you'll increase the potential benefits."

Avoiding atherosclerosis: The killer you can't see

Be proactive to ward off clogged arteries that can lead to heart attack, stroke, and even death.

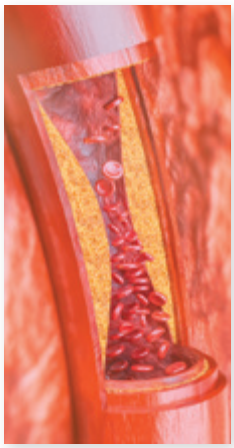
Most people don't spend a lot of time thinking about atherosclerosis. After all, you can't see any buildup of waxy plaque that may exist in your arteries, and the disease doesn't make itself known until it's advanced. "It can progress for decades before you have symptoms like chest discomfort or shortness of breath," explains Dr. Ron Blankstein, a cardiovascular imaging specialist and preventive cardiologist at Harvard-affiliated Brigham and Women's Hospital.

Yet atherosclerosis quietly and invisibly puts many millions of people at risk for heart attack, stroke, leg amputation, disability, and even death.

Picture this

Your arteries are like smooth pipes that carry blood throughout your body. But risk factors for atherosclerosis such as smoking, high blood pressure, inactivity, diabetes, family history, and even infections or inflammation can cause the lining of the artery wall (the endothelium) to become damaged, making it susceptible to deposits of cholesterol.

You may have too much cholesterol floating around in your blood if you eat a diet high in saturated fats (such as those found in processed meats, red meat, and butter). Those fats stoke the liver to produce higher levels of low-density lipoprotein, or LDL—little packages of cholesterol linked to protein, which travel around the body in the blood. We need some cholesterol to make vitamin D, hormones, bile that aids digestion, and the coverings of our cells. But excess LDL may wind up lodging in the artery walls, causing plaques of atherosclerosis to grow. Its counterpart, high-density lipoprotein (HDL), may remove some of the deposited cholesterol and carry it away in the bloodstream.



Plaque can reduce blood flow in arteries, causing pain and other conditions.

Plaque buildup

When cholesterol is deposited in the artery walls, white blood cells arrive to trap it. But they're unsuccessful, and the deposits wind up oozing fat and causing inflammation. The mess of cholesterol and white blood cells is called plaque. Muscle cells in the artery wall try to contain plaque by forming a fibrous cap over it.

But plaque deposits can bulge into the artery and interfere with blood flow. If the plaque is in one of the coronary arteries, which supply your heart, it may cause chest pain with physical activity, a condition called angina. If it's in your brain, it may cause a decline in thinking skills known as vascular dementia. If it's in your arms or legs, the buildup is known as peripheral artery disease, and it may cause a painful condition called claudication.

Devastating consequences

If the plaque breaks open, a blood clot will form around it and may completely block blood flow to your heart (a heart attack), brain (a stroke), or any part in your body (the kidneys, intestines, legs), killing healthy tissue within minutes.

If blood flow to your foot is completely blocked, for example, the foot can die and require amputation. Atherosclerotic clots are so common that annually they cause

- 370,000 deaths from coronary artery disease (primarily heart attacks)
- almost 800,000 heart attacks
- almost 700,000 strokes.

As dismal as these numbers are, there is encouraging news: "Many if not most cardiovascular events can be prevented," says Dr. Blankstein.

Primary prevention

Don't wait until you have atherosclerosis symptoms—such as unexplained chest pain or pain anywhere there might be a blocked artery, fatigue and shortness of breath with physical activity, and muscle weakness. Start by focusing on the following healthy lifestyle habits, considered the foundation for reducing atherosclerosis risk.

Control underlying conditions. Obesity, high blood pressure, diabetes, and high cholesterol are all linked to various artery diseases (such as coronary or peripheral artery disease). Note: Doctors no longer focus on a single cholesterol target for blood levels of HDL, LDL, or total cholesterol. Instead, they take a more personalized approach to controlling cholesterol based on all your risk factors, of which cholesterol levels are just one. "But in general, the lower your cholesterol the better. We try to keep LDL lower than 100 milligrams per deciliter, or below 70 for those who are at highest risk," Dr. Blankstein advises.

Exercise. Updated cholesterol management guidelines from the American College of Cardiology and the American Heart Association, published online Nov. 12, 2018, by *Circulation*, recommend at least 40 minutes of aerobic activity (the kind that gets your heart and lungs pumping) three or four days per week. Exercising can lower blood pressure, burn body fat, and lower blood sugar levels. Exercise combined with weight loss can also lower LDL levels.

Eat a healthy diet. "The two diets that may help most are a plant-based diet, free of animal products, which has been shown in some observational studies to improve blood flow and reverse coronary artery disease to some extent; and a Mediterranean-style diet, which has been shown to reduce cardiovascular events, mostly stroke, compared with a Western diet," Dr. Blankstein says.

A plant-based diet maximizes consumption of fruits, vegetables, whole grains, and legumes like beans, peas, and lentils, while minimizing processed foods. A Mediterranean diet includes generous quantities of olive oil, fruits, vegetables, nuts, whole grains, and fish; limited portions of red meats or processed meats; and moderate amounts of cheese and wine.

Quit smoking. Toxins in tobacco smoke damage the lining of the arteries, and smoking is one of the most common reasons people experience heart attacks at an early age.

Cholesterol-lowering medications

If you are at increased risk for cardiovascular disease or if you have already had a heart attack, stroke, or the diagnosis of angina or peripheral artery disease, your doctor may want to put you on a statin drug to try to fend off cholesterol buildup in the arteries and shrink plaques.

Statins—such as atorvastatin (Lipitor), rosuvastatin (Crestor), lovastatin (Mevacor), and pravastatin (Pravachol)—block the liver enzyme that promotes cholesterol production. Another medication called ezetimibe (Zetia) may be added to block cholesterol absorption in the digestive tract.

Statins have been shown to reduce the risk of heart attack, stroke, and death. However, they have rare side effects, including elevated blood sugar (if you're on the border of having diabetes, you may be more likely to cross the threshold), temporary muscle aches, a potentially life-threatening breakdown of muscle cells, and liver problems.

Statins help reduce the risk of heart attack and stroke.

On the fence

If a decision about statin therapy is uncertain, the new cholesterol guidelines suggest considering a noninvasive test called a coronary artery calcium (CAC) scan, which measures specks of calcium in the heart's arteries (a clue to the presence of plaque).

"But you should only consider the test if the results will lead to a change in medical therapy," Dr. Blankstein says. "It's for people in a gray area regarding their level of risk, or who have a strong preference for avoiding treatment. If the test shows you have significant plaque, you can be more aggressive in your treatment. If it shows you don't have plaque, you may prefer avoiding medication and focusing on lifestyle."

Can we reverse atherosclerosis?

With proper treatment, it's possible to halt atherosclerosis and even reverse it to a small extent. "We can't take someone with severe disease and make their arteries look normal. But at a minimum, we can stop progression and reverse it in some cases with intense treatment," Dr. Blankstein says.

For people with advanced disease, it will likely take a combination of lifestyle changes (like eating better and exercising more) and medications to stop or reverse atherosclerosis. "But in those who do not have atherosclerosis," notes Dr. Blankstein, "we can prevent many of the risk factors that lead to this disease, and dramatically lower the risk of cardiovascular events, with lifestyle alone."

Supplements and sex ... *from p. 1*

L-arginine. This amino acid provides the raw material from which the body makes nitric oxide, a molecule that helps relax and open blood vessels, a necessary step to achieve an erection of the penis. "But putting that into a pill isn't proven to produce an erection," Dr. O'Leary says. Moreover, people with heart disease should avoid it. A study of L-arginine's effect on heart attack survivors had to be stopped early after six people taking the supplement died.

Yohimbine. This comes from bark of a tree native to Africa. "It does promote penile blood flow, but you have no idea whether the supplement you're taking has too much or too little," warns Dr. O'Leary. Another warning: yohimbine may damage heart function and may cause high blood pressure (hypertension), headaches, agitation, insomnia, and sweating.

Natural performance boosters

Lifestyle changes can help boost sexual activity without medication. "Very good data have shown that in men, weight loss alone improves sexual function. It's probably because fat makes estrogen, which fights testosterone needed for sexual function," Dr. O'Leary says.

Other things that can help for both sexes: exercising and smoking cessation, which improve blood flow to the sexual organs; limiting alcohol intake, since large amounts can dampen sexual reflexes and the ability of men to maintain an erection; and eating a healthy diet, which helps maintain a healthy weight.

If these approaches aren't helping, your doctor may be able to find a solution—that could involve treating an underlying condition or prescribing medication (for men) or lubricants and low-dose vaginal estrogen products for vaginal dryness and painful sex in women.

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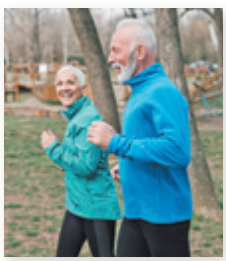
Meat-free diet linked to benefits for people with type 2 diabetes

Avoiding animal products and eating a plant-based diet is a great way to keep type 2 diabetes under control, according to a study published Oct. 30, 2018, in *BMJ Open Diabetes Research & Care*. Researchers reviewed 11 studies (most of them randomized controlled trials, the gold standard in research) that included more than 400 mostly middle-aged people with type 2 diabetes. The average length of each study was about six months. People who followed a plant-based diet experienced significant improvements in blood sugar control, emotional health, quality of life, weight loss, and cholesterol levels, compared with people who did not follow plant-based diets. Some people who ate a plant-based diet were even able to reduce or eliminate their medications for diabetes control and high blood pressure. If you'd like to try the diet at home, focus on lots of vegetables, legumes (a must for protein and fiber), fruits, seeds, whole grains, and nuts. But don't stop taking any medications without talking to your doctor first.

New physical activity guidelines: Even a little activity will help health

An update to the Physical Activity Guidelines for Americans may motivate you to move a little more. The guidelines, published online Nov. 12, 2018, by *JAMA* uphold previous recommendations from 2008 that urged at least 150 minutes per week of moderate-intensity activity, such as brisk walking. But the new guidelines break from the old rule that physical activity had to be accumulated in bouts of at least 10 minutes to count toward your weekly total. Now the evidence shows it doesn't matter how long an exercise session lasts; it's the total volume of activity that counts, even if it's in short bursts. That means you can jog to your mailbox, do jumping jacks during TV commercials, or skip to your car in the parking lot; any bursts of activity that get your heart and lungs pumping will count toward the weekly goal, and they will contribute to enhanced health. (Note: It's safer for your heart and better for your muscles if you warm up with a few minutes of marching in place or walking before breaking a sweat.) The evidence about the health benefits of regular physical activity is well established, and includes lowering your risk for developing heart disease, stroke, dementia, depression, type 2 diabetes, and many kinds of cancer; lowering your risk of early death from any cause; and improving sleep, weight control, bone health, balance, and physical function.



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The hidden dangers of dietary supplements

As we reported on page 1 (see "Can supplements save your sex life?"), dietary supplements marketed for sexual function—which are supposed to be free of conventional drugs—may contain hidden pharmaceutical ingredients. A study published online Oct. 12, 2018, by *JAMA Network Open* analyzed almost 800 supplements. Most were for sexual enhancement, weight loss, or muscle building. About 80% of the supplements contained one pharmaceutical ingredient, 20% contained more than one pharmaceutical ingredient, and some (33 products) contained three or more pharmaceutical ingredients. The most common hidden pharmaceuticals: erectile dysfunction drugs, weight-loss medications, antidepressants, anabolic steroids, and nonsteroidal anti-inflammatory drugs. Some of the hidden drugs have never been approved by the FDA; others have been removed from the market. And all, say the authors, have the potential to cause severe harm from accidental misuse, overuse, or interaction with other medications, underlying health conditions, or other drugs within the same dietary supplement. Talk to your doctor first before taking any dietary supplement.

What's coming up:

- Food truck fad: Trendy eats, but are they safe?
- Getting in on the kettlebell craze
- Which allergy medication is right for you?
- Underlying conditions that cause shaky hands