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**Calcium deposits
under the skin**

Mayo Clinic Health Letter

Reliable Information for a Healthier Life



**Thickening
and tightening
of the skin**

Scleroderma

More than skin deep

Your rings barely fit your fingers anymore. There's been little weight gain elsewhere, but your fingers have puffed up. They change color in the cold, more so than usual. And to top it off, you've got bad heartburn that keeps you from eating much of anything lately.

That mix of symptoms can occur with systemic sclerosis, commonly known as scleroderma (sklair-oh-DUR-muh). Scleroderma is a group of rare autoimmune diseases that result from overproduction of collagen — a fibrous type of protein in the body's connective tissues. Classic symptoms of the disease are the hardening and tightening of the skin. But the systemic form can have effects far beyond the skin, including in several internal organs.

“Thankfully, not every person with systemic sclerosis will develop the

disease in every organ or will experience every symptom,” says Alicia Hinze, M.D., M.H.S., a rheumatologist at Mayo Clinic in Rochester, Minnesota. Dr. Hinze is co-director of the Scleroderma Clinic at Mayo Clinic, and she notes that the disease often can be managed effectively with regular monitoring, lifestyle changes and medications.

Two main types

The word *scleroderma* comes from the Greek *sclero*, meaning hard, and *derma*, meaning skin. There are two main kinds of scleroderma. One type typically only involves the skin in adults and is known as morphea. Morphea is distinct from the second type, systemic sclerosis, as it does not involve other organs or blood vessels.

In systemic sclerosis, internal organs are nearly always affected in addition to the skin. The disease can be limited to skin thickening below



**Small red
spots on the skin**

Scleroderma commonly causes hardening and tightening of the skin, often first appearing on the hands or feet. Some people also have small red spots (telangiectasias) on their hands and face. Another condition, calcinosis, can cause calcium deposits to form under the skin.

the knees and elbows (limited scleroderma), or it can be more widespread, with thickening that extends to the upper arms, thighs and trunk (diffuse scleroderma). Systemic scleroderma can alter physical appearance if skin thickening involves the face. The disease can damage the blood vessels and affect the digestive tract, lungs, kidneys, heart, joints and muscles. Women between ages 30 and 60 are most commonly affected. Having a family history of autoimmune conditions also is a risk factor.

Signs may start in the extremities

The symptoms of scleroderma vary based on which body parts are involved. Areas that may be affected include:

- **Fingers or toes** — One of the earliest signs is an exaggerated response to cold temperatures or emotional distress, which can cause color changes in the fingers or toes and may cause numbness or pain. This condition, called Raynaud's phenomenon, also occurs in people who don't have scleroderma. But 90% of people with scleroderma have Raynaud's, which is often the first sign and may begin years before skin or organ symptoms begin. Puffy fingers are another important early symptom.
- **Skin** — Nearly everyone who has scleroderma experiences a hardening and tightening of the skin.

This symptom often first appears on the hands or feet. Skin over the arms, legs, face and neck also can be affected. Some people also have small red spots, called telangiectasias, on their hands and face. Another condition, calcinosis, can cause calcium deposits to form under the skin, resulting in bumps that can be seen on X-rays. The skin may be itchy and can appear shiny because it's so tight. Sometimes skin color may get darker or lighter.

- **Joints, muscles and tendons** — Many people with scleroderma experience joint pain and stiffness due to tight skin. Inflammation in the joints and tendons, commonly affecting the hands and wrists, also may occur. Some may develop symptoms of carpal tunnel syndrome. Muscle involvement can lead to weakness.
- **Digestive system** — Acid reflux is a common complication in systemic sclerosis. As it progresses, the reflux can damage the section of esophagus nearest the stomach, causing scarring and difficulty swallowing. Also, the disease can cause people to have nausea, vomiting, cramping, diarrhea and constipation if muscles in the intestines aren't coordinated.
- **Heart, lungs or kidneys** — Systemic disease can affect the heart, lungs or kidneys to varying degrees. If left untreated, these problems can become life-threatening.

If systemic sclerosis progresses and internal organs are affected, complications may occur, including:

- Damaged tissue at the fingertips, which may lead to slow-to-heal wounds (ulcers).
- Acid reflux and trouble swallowing.
- Scarred lung tissue, resulting in reduced lung function.
- Sudden rise in blood pressure.
- Kidney complications, including kidney failure.
- Elevated blood pressure in the lungs (pulmonary hypertension).
- Scarred heart tissue, which increases the risk of irregular heartbeats (arrhythmia) and heart failure.

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SELF-CARE STEPS

Along with following your treatment plan and seeing your care team regularly, there are steps you can take to minimize symptoms and prevent complications:

- **Stay active** — Exercise keeps your body flexible, improves circulation and relieves stiffness. Range-of-motion exercises keep your skin and joints flexible.
- **Don't smoke** — Nicotine causes blood vessels to narrow, making Raynaud's phenomenon worse. Smoking also can permanently narrow the vessels.
- **Prevent heartburn** — Avoid foods that give you heartburn. Avoid late-night meals and remain upright for 30 minutes after eating or drinking to prevent reflux. Elevating the head of your bed also may help.
- **Protect yourself from the cold** — Wear warm mittens and socks. Also keep your core warm, as this can prevent further narrowing of blood vessels.
- **Prevent infection** — Regular influenza, pneumonia, respiratory syncytial virus (RSV) and COVID-19 vaccinations can help protect damaged lungs.

- Dental decay from dry mouth.
- Chronic constipation.
- Overgrowth of bacteria in the small intestine, which causes bloating, cramping, diarrhea and weight loss.
- Sexual dysfunction.

Early detection important but elusive

Many of the complications of scleroderma appear in the first 5 to 7 years. So it's very important to get diagnosed and treated as early as possible. But because scleroderma can take many forms and affect different areas, it can be difficult to diagnose.

After doing a physical exam, your healthcare team may recommend blood tests to check for elevated levels of certain antibodies produced by the immune system. In addition, you may have tests to check the function of your lungs, kidneys and heart.

People suspected to have systemic sclerosis are typically referred to a rheumatologist to confirm the diagnosis, determine proper treatments and create a monitoring plan. It is important that all people with systemic sclerosis be monitored for pulmonary hypertension, as this can occur at any point in the disease course, even many years after onset. Monitoring usually includes regular ultrasound exams of the heart (echocardiograms). If additional organs are involved, other specialists also may be consulted.

Treatment depends on symptoms

The use of medications to suppress the immune system to slow the disease is beneficial for some, but not all, people. Immunosuppression is most commonly used for the treatment of lung, muscle or joint symptoms and for skin symptoms that involve a significant area of the body. The most common first therapy is a drug called mycophenolate mofetil. For muscle or joint inflammation, the first line treatment is often methotrexate.

“Many times, we are balancing the need to treat multiple complications of the disease and may use a combination of therapies or alternative therapies,” says Dr. Hinze.

Recent years have brought promising new treatments for systemic sclerosis that affects the lungs. Nintedanib (Ofev) was approved by the Food and Drug Administration (FDA) in 2019 to treat scleroderma-associated lung disease and to reduce lung fibrosis. It's a pill you take twice a day. Tocilizumab (Actemra) received FDA approval in 2021 to treat scleroderma-associated lung inflammation. It's taken by self-injection. Other immunomodulating drugs may be considered, though they are not FDA-approved for scleroderma. In very severe disease involving the skin or the lungs in particular, stem cell transplant may be an option.

These drugs are for specific groups of people with certain types of systemic sclerosis. For systemic sclerosis generally, there's currently no cure. But treatments can improve your quality of life and slow disease worsening. A variety of medications have been developed to control scleroderma symptoms. The drugs serve to:

- *Dilate blood vessels* — Blood pressure medications that dilate blood vessels, such as the calcium channel blockers amlodipine (Norvasc) and nifedipine (Procardia) or the phosphodiesterase 5 inhibitor sildenafil (Viagra, Revatio), may help treat Raynaud's. These medications also may be used to treat any pulmonary hypertension.
- *Suppress the immune system* — Drugs such as mycophenolate mofetil may reduce progression. This option is often used when skin symptoms are widespread or the lungs are significantly affected. Methotrexate also may help, especially with muscle or joint involvement.
- *Reduce stomach acid* — Drugs such as omeprazole (Prilosec) or famotidine can relieve acid reflux.
- *Relieve pain* — If nonprescription pain relievers aren't enough, your care team may prescribe a stronger one.

In addition to medication options, physical or occupational therapy can help you manage your pain, improve your strength and mobility, and maintain your independence. ■

HEALTH TIPS

USES OF PETROLEUM JELLY

Petroleum jelly originated as a byproduct of oil drilling, when workers discovered it could help heal wounded skin. Now refined and purified, this inexpensive “healing jelly” has numerous uses, including:

- *Dry skin* — Because it's chemically similar to proteins in the skin, petroleum jelly works as a nonallergenic skin moisturizer, especially in the winter. It's helpful in treating dry lips, cracked hands and leathery heels. Try using it to soothe irritated eyelids.
- *Chafing or chapping* — To prevent blisters, apply petroleum jelly to areas that may rub, such as your thighs or feet. Petroleum jelly also can act as a shield to reduce chapping and windburn. Apply a thin layer to exposed skin before heading out into cold, windy air.
- *Scrapes and cuts* — Use petroleum jelly to keep minor wounds moist. This prevents scabs from forming.
- *Minor burns* — Petroleum jelly provides a chemically neutral barrier between burned skin and the air. Apply it 2 to 3 times daily to promote healing and reduce pain. However, using it on a fresh burn can trap initial inflammatory heat and increase discomfort. So before applying, run the burn under cool water until the heat has dissipated.
- *Eczema* — You can soften crusty, flaky skin with a light application.
- *Dry, brittle nails* — Petroleum jelly is a great option for rehydrating dry cuticles. Apply to damp nails between polishes to minimize brittleness and prevent chipping.

For best results, apply to damp skin using clean hands or an applicator such as a cotton swab. Petroleum jelly is generally not flammable except in the presence of high oxygen levels. Never apply petroleum jelly-based products when using oxygen equipment. ■

Isometric strengthening

Getting stronger without moving

Maybe you've never heard the term *isometric strengthening*, but you've certainly done it. If you've held a yoga position, stood still on tiptoes, carried a child in your arms or performed a grip strength test, you've done an isometric exercise.

Isometric exercises are tightening (contraction) of a specific muscle or group of muscles. During an isometric exercise, the muscle doesn't noticeably change length. The affected joint also doesn't move. Think of doing a biceps curl with a dumbbell. But rather than moving your hand and forearm up and down, you simply hold your arm at a right angle. That's an example of an isometric exercise. By holding the position, you feel muscles working and eventually fatiguing the longer you hold the dumbbell against the force of gravity. Similarly, raising your straight leg off the ground while lying down causes your quadriceps muscle, the big muscle on the front of your thigh, to contract in an isometric fashion.



As with most resistance training, isometric exercises can build muscle and tendon strength. They may not be the best way to gain strength for optimizing dynamic, athletic movements. However, isometric exercises can play an effective role in a strengthening, stability or rehabilitation plan — and can be particularly useful for older adults.

Great ways to go isometric

Pro athletes and Olympians use isometric strengthening exercises for many reasons, and so can you. Below are a few well-established benefits.

Improving stability

If you're standing and doing a biceps curl, it's more than just your arm muscles at work. Your back and abdominal muscles are working too. These core muscles aren't changing in length, but they are contracting in a way that provides the stability and bracing needed to perform the task. Similarly, if you stand on one leg, you can feel leg muscles contracting to help keep the knee joint stable.

Isometric exercises can enhance and strengthen the muscles and tendons involved in body stabilization. Body stability is useful for athletes. It also helps with fall prevention and with daily

movements, such as carrying a bag of groceries or going up and down stairs.

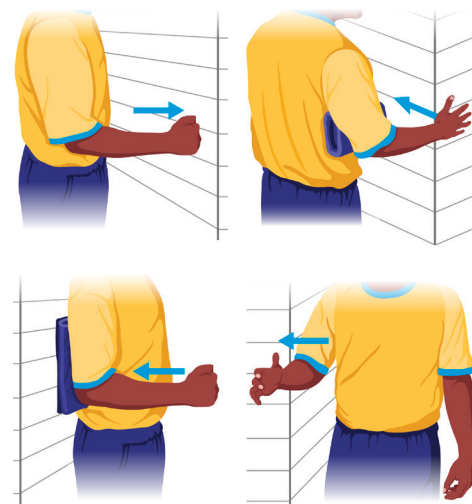
At left are some common isometric core-stabilizing exercises. Once you are in one of the positions, hold for up to 20 seconds to start, or until you start to feel your muscles fatigue. Breathe slowly and evenly while holding the position. After a short break, you may want to try another set.

As your strength improves, you can increase the length of time you hold the position, perform additional sets or advance to a more challenging version of the exercise. If you're uncertain about the movements, ask a qualified physical therapist or fitness instructor to help you get started with proper form.

Maintaining strength while injured or when recovering from injury

If you injure a joint or a muscle group, it'll likely be uncomfortable or even painful to move through its full range of motion. However, with appropriate isometric exercises, you may be able to begin to rehabilitate and strengthen the injured area because the joint or muscle isn't moving.

Below are common isometric exercises often recommended for rehabilitation of shoulder injuries. These also can be used for general strengthening, particularly if you are prone to shoulder injury. Seek the advice of a qualified healthcare professional for exercises that may work for your situation.



IMPROVING BLOOD PRESSURE

Aerobic exercise, dynamic resistance training and isometric strengthening can all help lower blood pressure. Though most research points to aerobic exercise as the best means of reducing blood pressure, a recent review of research found that isometric strengthening may have an equal or greater impact.

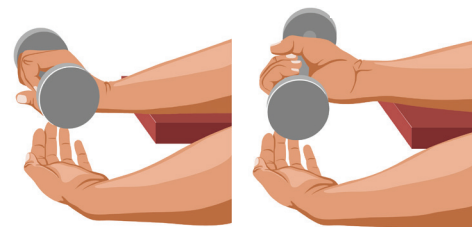
Check with your healthcare team before beginning strengthening exercises if you have high blood pressure or any heart problems. Avoid holding your breath and straining during any weight training exercise. This may increase blood pressure.

Improving strength and mobility with arthritis

A joint with arthritis may be painful or become aggravated when moved through the full range of motion. This may cause you to use the joint less, which can cause more pain in the joint. Isometric strengthening can help strengthen joint-supportive muscles without painful movement. When people with arthritis perform

isometric exercises, they may be able to progress to other types of strength training. Appropriate strength training of any type may help reduce arthritis pain and improve physical function.

The examples at right show isometric wrist strengthening exercises that may be recommended for someone with wrist arthritis. Use the opposite hand under the weight as a support. Work with a qualified



healthcare professional to learn about isometric strengthening exercises that are appropriate for your situation. ■

NEWS AND OUR VIEWS

SAFE SEX AMID RISE IN INFECTIONS

As people live longer and healthier lives, they are staying sexually active longer too. This has contributed to a significant rise in sexually transmitted infections (STIs).

The Centers for Disease Control and Prevention tracks STIs. Over the past decade, overall reported cases have more than doubled. The numbers are more dramatic for certain infections. Cases of syphilis, gonorrhea and chlamydia among older adults in the U.S. have increased by more than four times. A 2024 report in *The Lancet Healthy Longevity* found a similar increase in STIs in older adults across the world.

An STI is passed from person to person through intimate contact, including vaginal, anal or oral sex. Among older adults, there are a number of unique factors that are contributing to increased rates of STIs. In addition to potentially not knowing the risk factors for STIs, older adults may be more likely to:

- Become single again after the loss of or separation from a longtime partner.
- Take hormone therapy or erectile dysfunction drugs, which increase the likelihood of sexual activity.
- Have less robust immune systems that are resistant to fighting infections.
- Experience drying and thinning of vaginal tissue, which may lead to small breaks in the tissue that provide an easy entry point for infection.

Mayo Clinic experts say that these reports point to the importance of speaking candidly with your healthcare team about your sexual health and risks.

Have these necessary conversations as part of your approach to overall health.

The only sure way to prevent an STI is to avoid sexual contact or to have sexual contact only within a monogamous relationship in which neither partner has an STI. If you're seeing a new partner or partners, protect yourself and others by:

- Limiting the number of partners and talking about STI risks with each of them before becoming intimate.
- Using latex or polyurethane condoms, and using lubricants made specifically for sexual intercourse to maintain the effectiveness of those condoms.
- Keeping an eye out for symptoms and getting regular testing for STIs. ■

FOR SOME PROSTATE CANCER, DELAYING TREATMENT IS OK

It's probably human nature to question why your healthcare team would advise against treatment after you're diagnosed with prostate cancer. But the active surveillance approach — monitoring the disease rather than immediately treating it with surgery or medications — has additional evidence of effectiveness in a large recent study.

The study, published in *JAMA*, included 2,155 older men with early-stage prostate cancer. Most of the participants had a low-grade form of prostate cancer at diagnosis — meaning a biopsy showed that the cancer cells looked more like healthy cells and tended to grow and spread more slowly than more-aggressive types. While a small group of men received treatment shortly after diagnosis, the rest followed an active

surveillance approach. They were given regular prostate-specific antigen (PSA) tests, digital rectal exams and scheduled biopsies of prostate tissue. About 40% of the participants later underwent treatment, with most either having the prostate surgically removed (prostatectomy) or being treated with radiation. Most of these men opted for more aggressive treatment only after tests revealed that the cancer was at risk of getting more severe or spreading.

After a decade of follow-up, nearly half of the participants continued active surveillance and had no signs of cancer progression. Overall, only about 2% of the participants had cancer that spread and less than 1% died of prostate cancer. The outcomes were similar whether treatment occurred in the years immediately after diagnosis or later in the follow-up period. These results suggest that active surveillance is a reasonable approach in low-grade, lower risk prostate cancer.

Mayo Clinic experts note that this large study lends further support to the active surveillance approach. But they caution that it doesn't apply to everyone with prostate cancer. It's an option to consider only for cancers that are not high risk or high grade, are expected to grow very slowly, and are confined to the prostate. Active surveillance also may be the best option for someone who has a limited life expectancy or other serious health conditions that could make cancer treatment more difficult. Work with your healthcare team to decide on an approach that best suits your health profile and comfort level. ■

Aspirin

Balancing benefits and risks

Taking a low-dose aspirin on a regular basis is fairly common for older adults. A recent survey found that about 25% of adults ages 50 to 80 in the U.S. take the clot-reducing drug at least three times a week. It's easy to understand why: Some research has shown that regularly taking low-dose aspirin contributes to better heart health and a lower risk of some cancers.

However, emerging research has painted a more complicated picture — showing benefits not as strong as once believed and spotlighting risks of long-term aspirin use. National guidelines have been updated that suggest a more cautious approach to the common practice. It appears that up to half of the older adults currently taking low-dose aspirin — which is usually an 81 milligram pill — should reconsider, as the benefits may not outweigh the risks. As with all medications, you should first consult your healthcare team before starting or stopping use. Knowing the risks and benefits of aspirin use is an important step in the process.

How it works

When a person bleeds, clotting cells called platelets go to site of the wound. The platelets help plug the opening in the blood vessel. This stops bleeding. Sometimes clots occur inside of a damaged heart artery. The clot can prevent blood flow to the

heart muscle, leading to a heart attack. Having the artery-clogging condition atherosclerosis increases the risk of these types of clots.

Since aspirin reduces clotting, it's been thought that daily low-dose aspirin therapy could possibly prevent a heart attack. That's an important benefit since cardiovascular disease is the leading cause of death in America. Heart attacks and strokes — the two most severe events related to cardiovascular disease — each affect more than 600,000 people in the U.S. yearly.

However, the evidence in research trials for aspirin's benefits in preventing disease is somewhat mixed for:

- **Heart attacks** — Those who take aspirin regularly appear to have about a 12% to 18% reduced risk of a nonfatal heart attack compared with those who don't take aspirin. However, the risk of a fatal heart attack remains the same.
- **Stroke** — Aspirin appears to have some benefit in reducing the risk of nonfatal stroke but has no effect on preventing a fatal stroke.
- **Cancer** — The evidence for aspirin use lowering the risk of colorectal cancer is based on few studies and not as strong. More-recent studies show no clear benefit and possible harm. Researchers haven't found that aspirin significantly protects against other types of cancers.

Risks to consider

Side effects and complications of regularly taking aspirin include:

- **Stroke caused by a burst blood vessel** — While daily aspirin can help prevent a clot-related stroke, it increases the risk of a bleeding stroke. A bleeding stroke also is called a hemorrhagic stroke.
- **Gastrointestinal bleeding** — Daily aspirin use increases the risk of bleeding in the stomach or intestinal wall. If you already have a stomach ulcer, have liver disease or use other blood-thinning medications, taking aspirin may cause more bleeding. The bleeding may be life-threatening.
- **Allergic reaction** — If you're allergic to aspirin, taking any dose of aspirin can trigger a serious allergic reaction.

If you're taking aspirin and you need surgery, be sure to let your care team know. Steps may be needed to prevent excessive bleeding. Don't stop taking aspirin without talking to your team about when to stop and when to restart.

Putting it all together

A decision to take aspirin therapy depends on many factors. Research on the topic continues to evolve, producing what at times may seem like conflicting or confusing recommendations.

In 2022, the U.S. Preventive Services Task Force (USPSTF) issued guidelines for aspirin use to prevent a first cardiovascular event. The guidelines take into account the latest research and the potential risks and benefits. See the current recommendations below, which are based on the USPSTF guidelines and Mayo Clinic experts. ■

Benefits may outweigh risks if ...

- You're between ages 40 and 59 and you're at high risk of having a first-time heart attack or stroke within the next 10 years. High risk means your risk is 10% or greater. The American College of Cardiology has a calculator for this at <https://tools.acc.org/ascvd-risk-estimator-plus/#!/calculate/estimate>.
- You haven't had a heart attack, but you've had coronary bypass surgery or a stent placed in a heart artery. Or you have chest pain (angina) or any other medical condition where aspirin is proved to prevent heart attack or stroke.
- You're younger than 60 and you have diabetes and at least one other heart disease risk factor, such as smoking or high blood pressure.

Risks may outweigh benefits if ...

- You are over age 60, don't currently take aspirin, and don't have a history or high risk of cardiovascular disease.
- You have a condition that causes you to bleed easily.
- You have an aspirin allergy or asthma worsened by aspirin.
- You have bleeding stomach ulcers or a history of gastrointestinal bleeding.

Testosterone therapy for men

Helpful for some, but often not needed

You may have seen ads making bold claims: feel younger, get stronger, improve your sex drive. The ads tend to be for therapies that contain a synthetic replacement for testosterone, a naturally occurring hormone. Testosterone plays a vital role in the external development of genital organs and secondary sex characteristics — such as a deep voice and facial hair. Marketers tend to target middle-aged and older men since levels of the hormone fall with age.

However, experts agree that testosterone is not a miracle drug that will cure all problems. Further, it comes with some important risks. The Food and Drug Administration has only approved testosterone therapy for low testosterone with a clear medical cause.

A hormone decreased by age, disease

In addition to affecting voice and facial hair, testosterone impacts other parts of the body, including bone density, blood pressure and the creation of red blood cells. It's produced primarily in the testicles, and testosterone levels vary greatly among men. Women make testosterone in their ovaries and adrenal glands, but they make much less.

Testosterone levels generally peak during adolescence and early adulthood. As men age, testosterone levels gradually decline — typically about 1% a year after age 30 or 40. For older men, it's important to determine if low testosterone is due to typical aging or if it is due to hypogonadism. This is a condition that hampers the ability to produce usual amounts of testosterone due to a problem with the testicles or with the pituitary gland that controls the output of the testicles.

The risk of hypogonadism increases as men get older. A rare condition present at birth may be the cause, or hypogonadism may develop due to obesity, diabetes, injury to the testicles, pituitary tumors or radiation treatment.

The condition also may occur with use of drugs, such as opioids, cannabis or chemotherapy agents.

To be diagnosed with hypogonadism, you need to have two factors:

- *Low testosterone levels* — This needs to be confirmed by at least two blood tests taken on separate days, as levels can fluctuate. There isn't a standard "low" level, but Mayo Clinic experts consider 240 nanograms per deciliter (ng/dL) the lower healthy limit.
- *Symptoms* — These may include decreased sexual desire, less energy, depression, loss of muscle mass, reduced body hair growth, development of breast tissue or loss of bone density (osteoporosis).

Further testing can help determine the cause. Sometimes this cause may be reversible without the need for testosterone replacement. But at other times, testosterone therapy may be considered. This therapy, in the form of injections, pellets, patches or gels, may improve symptoms of low testosterone.

Effects not the same for all men

Men who don't have hypogonadism will likely experience some of the symptoms of aging described above, although not as severely.

Some of these symptoms can be caused by other factors, including medication side effects, obstructive sleep apnea, thyroid problems, diabetes and depression. It's also possible that these conditions are causing low testosterone levels. Treating the conditions might increase testosterone levels without the need for testosterone replacement.

Testosterone replacement therapy can help reverse the effects of hypogonadism, but it's unclear whether it would help older men who are otherwise healthy.

Although some men believe that they feel younger and more vigorous when they take testosterone therapy, there's little evidence to support its use in otherwise healthy men. Guidelines from the American College of Physicians indicate that testosterone

therapy might improve sexual function somewhat in some men, but there's little evidence that it improves functions such as vitality and energy.

Risks often don't outweigh benefits

Testosterone therapy has various risks. Taking it can:

- Worsen sleep apnea.
- Cause acne or other skin reactions.
- Stimulate noncancerous growth of the prostate (benign prostatic hyperplasia) and growth of existing prostate cancer.
- Enlarge breasts.
- Limit sperm production or cause testicles to shrink.
- Stimulate too much red blood cell production, which contributes to the increased risk of blood clots and blocked blood flow in the lungs (pulmonary embolism).

Testosterone replacement therapy also has been linked to an increased risk of heart disease, but recent research has found little to support that connection.

Have a conversation

If you have age-related changes and want to address your symptoms, talk with your healthcare team. Often, treating other health conditions, changing medications or improving lifestyle factors — including losing excess weight and doing regular weight training exercises — can have a significant positive impact.

Once you understand what's causing symptoms, you can develop solutions. Testosterone therapy is just one option. Knowing the benefits and risks can help you have an informed and honest conversation with your care team. ■

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Second opinion

Q My incontinence medicine is so helpful, but I just read that it could increase my dementia risk. What are my options?

A Some urinary incontinence drugs are linked to memory issues. While these older drugs are quite effective and inexpensive, it may be time to consider other available options.

Anticholinergic drugs such as oxybutynin, tolterodine (Detrol) and solifenacin (Vesicare) have long been mainstays in treating forms of urinary incontinence. These drugs work by blocking the action of the chemical messenger acetylcholine. Acetylcholine sends a signal to your brain that triggers bladder contractions. When this feedback loop doesn't work properly, it can lead to an overactive bladder.

As with any drug, side effects are possible. And one important concern is the potential for effects on the brain. Anticholinergics may cause confusion, agitation and hallucinations. These effects typically go away when the drug is stopped. However, research shows that longer use of these drugs — oxybutynin and solifenacin in particular — increases the risk of dementia. For these reasons, the American Geriatrics Society lists anticholinergics as potentially inappropriate drugs for older adults. They should be used only when the benefits outweigh the risks and at lower doses when possible. For people with existing cognitive impairment or dementia, these drugs are best avoided.

Talk with your healthcare team about what medications, if any, would be best for you. Some newer anticholinergics — namely trospium and darifenacin — don't appear to have the same cognitive effects. The drugs mirabegron (Myrbetriq) and vibegron (Gemtesa), in a class called beta-3 adrenergic agonists, have not been linked to dementia. Injections of onabotulinumtoxinA (Botox) might be used for some types of incontinence. Or nondrug therapies such as inserts, electrical stimulation or surgery may be recommended.

However, you might first consider attempting (or reattempting) nondrug strategies. These might include:

- Bladder training, where you slightly delay urination after you get the urge to go and then progressively lengthen the delay.
- Scheduled trips to the bathroom.
- Reduced liquid consumption.
- Avoidance of bladder irritants such as alcohol, caffeine and acidic foods.
- Pelvic floor muscle exercises, such as Kegels.

Ask your care team for help. You also might benefit from a referral to a pelvic floor physical therapist. ■

Q My joints and muscles get sore the day after an exercise class. Could cold plunges and ice baths help?

A Although cold therapy has become popular in recent years, the concept isn't new. It's the "I" in the RICE formula, which stands for rest, ice, compression and elevation. RICE is a common strategy for treating injured or sore areas of the body.

Cold-water immersion may reduce the degree of whole-body exercise-induced muscle damage that can occur after physically challenging activities. Less damage leads to less inflammation, which reduces soreness and helps restore physical performance in the short term. Ice also restricts blood flow, slows nerve signaling and reduces swelling, all of which may reduce delayed-onset stiffness and pain.

For these reasons, cold therapy may help reduce pain and soreness after hard training. It also may temporarily blunt the pain of a headache or sore knee as well as help you bounce back from an injury more quickly.

However, cold therapy can slow your recovery if used too often. Constricted blood vessels can limit the blood circulation that's essential for tissue healing. If you resistance train, cold water immersion may turn down the molecular signaling pathways that are normally activated after exercise. Both may hinder long-term improvements.

Consider cold therapy soon after a particularly tough workout. That's when it can help reduce swelling and pain. If the sore area is small, apply an ice pack for 15 to 20 minutes. Repeat as needed every 2 to 3 hours. For larger areas, immerse yourself in cold water. Fill a bathtub with cold water, add some ice and submerge yourself for a few minutes.

Or for a more proactive approach to recovery, choose heat most of the time. Use a heating pad, warm bath or hot tub for 15 to 20 minutes at a time. Repeat as needed, allowing at least an hour between sessions. The heat-induced increase in blood flow may promote tissue healing through improved nutrient delivery, oxygen delivery and clearance of waste products. ■

Have a question or comment? We appreciate every letter sent to Second Opinion but cannot publish an answer to each question or respond to requests for consultation on individual medical conditions. Editorial comments can be directed to:

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