

Mayo Clinic Health Letter

Reliable Information for a Healthier Life

Neck pain

Promote positive posture

You notice the discomfort especially when you're trying to back the car out of the driveway. Turning your head even a little to the side brings pain and tightness. You rely on the backup camera now that you realize that turning your head to look is just not an option.

For the estimated 15% of adults experiencing neck pain at any given time, the pain can make it difficult to do otherwise simple, everyday tasks. The age you start to experience neck pain often has to do with factors such as your lifestyle and your general health.

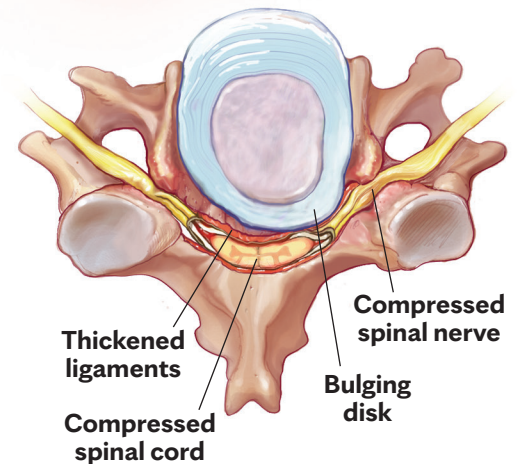
So long as you're not dealing with a serious problem, staying active and improving the fitness and function of your neck muscles are two of the most effective ways to treat neck pain — and prevent future episodes.

Spine time

You might picture your spine as a ladder or scaffold. It provides a central framework for your body's skeletal system and all of its components, including your musculoskeletal and nervous systems. No matter what you're doing — standing, sitting, bending, twisting or lifting — your spine is always at work, supporting your body.

The spine's vertebrae are grouped into four regions. At the top is the cervical spine, which consists of the seven vertebrae that make up the neck. Of the four spinal regions, the cervical spine generally has the greatest range of motion.

With age, the bones, joints, ligaments, and disks of the back and neck naturally begin to have wear and tear. Ligaments stiffen and become less flexible. Disks dry out and become more rigid, causing them to rupture or tear. Bones can lose their strength and become more vulnerable to fracture.



Neck pain may be localized to the neck region, or it may radiate to the shoulder and one or both arms. Sources of neck pain include stiff or thickened ligaments, a bulging disk, or pinching (compression) of the spinal cord bones or spinal nerves.

The wearing down of structures in the back and neck is called spinal degeneration, and it happens to everyone. As these structures weaken, they provide less support. This increases your risk of an injury. However, these degenerative changes don't always mean you are going to have pain and disability.

A variety of factors can contribute to neck pain, including:

- **Inactivity** — If you don't exercise regularly and maintain some level of fitness, your risk of neck problems increases. Regular exercise is important because it strengthens the muscles, joints and bones that support your back and neck. Stronger muscles make you more resilient and better able to handle the demands of daily life and work.
- **Weight** — Carrying around additional weight places increased stress on your spine, straining joints and ligaments.
- **Occupation** — Any job that requires repetitive bending, lifting, pushing or pulling, such as a construction or freight handling, increases the risk of neck injury. A job that requires long hours sitting or standing without a break also puts you at greater risk of developing a back or neck condition.
- **Posture** — Poor posture, especially when combined with inactivity, puts stress on your spine. It also weakens the muscles designed to support your neck and back. Your neck muscles also can become strained when you hold your head in the same position for a long time, such as when staring at a computer screen or cradling a phone between your ear and shoulder.

Pain takes different forms

Most neck pain is characterized by stiffness and limited range of neck and head motion. Although these symptoms can be severe enough to interfere with daily tasks, they're usually not related to a serious problem. There are three main types of neck pain:

- **Mechanical neck pain** — This very common pain is limited to the neck, without pain that radiates down the spine or to the arms.
- **Cervical radiculopathy** — This occurs when a spinal nerve root in the neck is compressed. Symptoms can include pain, tingling and numbness. Symptoms can vary depending on which nerve is affected.
- **Cervical myelopathy** — This chronic condition occurs when the spinal cord in the neck is compressed. It can be caused by a number of factors, including bone spurs in the neck, bulging or herniated disks, gradual wear of the spine, and narrowing of the spinal canal. It often leads to pain and discomfort elsewhere. Examples include radiating pain in the arms, nerve problems that cause discomfort with motor skills such as tying shoes or turning doorknobs, issues with walking, or trouble with urinating.

Rooting out a cause informs treatment

Sometimes neck pain warrants prompt medical care. This includes pain related to a specific injury, pain that travels into the shoulder or arm, and pain that coincides with arm or leg weakness, walking issues or urination or bowel troubles. It also includes pain that throbs, is linked to a headache, worsens at night, or occurs with fever or weight loss.

An evaluation for neck pain often starts by ruling out serious conditions, such as infection, inflammatory forms of arthritis — examples include rheumatoid arthritis or ankylosing spondylitis — injury-related problems, cardiovascular issues or cancer.

Beyond that, trying to identify a cause is often not helpful. Neck function and pain perception are complicated with many interwoven elements. Research has shown that it's difficult to find a cause-and-effect relationship between physical findings and the exact cause of neck pain. Moreover, discovery of an exact cause generally has no impact on initial treatment. Most people experience a complete recovery within 4 to 6 weeks with basic care.

During the first few weeks of neck pain, basic self-care is often the best treatment to speed recovery and prevent future neck pain. Steps include:

- **Staying active** — As long as a serious injury isn't involved, staying active is often the best way to speed healing. Still, be sure to pace yourself and take breaks to rest your neck if you need it. Neck discomfort while being active usually does not mean you are causing damage or harm.
- **Reducing stress with relaxation** — Tense muscles may benefit from stress reduction techniques such as deep breathing, meditation and progressive muscle relaxation.

Mayo Clinic Health Letter

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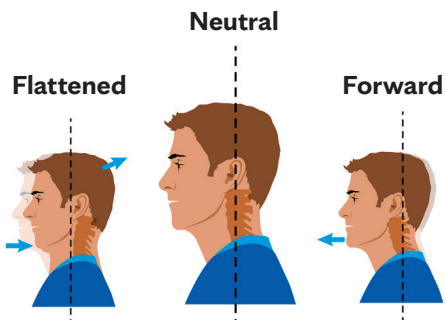
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Keeping your head upright and in a neutral position is key to good posture.

A heating pad, warm bath or shower may aid in muscle relaxation. So may a gentle massage.

- **Using short-term medication or an ice pack** — Basic pain relievers such as ibuprofen or acetaminophen may offer relief and allow you to gently exercise your neck muscles. An ice pack applied to the painful area for 20 minutes several times a day also may help relieve pain.
- **Improving posture** — Avoid positions that cause your head to lean to one side or tilt downward for extended periods. If you can't avoid leaning or hunching, take breaks to relax and reposition. Keeping your head upright and in a neutral position (shown in the illustration above) is key to good posture. When sleeping, use a small pillow under your neck. Try sleeping on your back with your thighs elevated on pillows.
- **Practicing gentle neck stretching** — Stretching exercises can help restore or sustain neck range of motion and stretch tense muscles, reducing pain. See the illustrations at right for two stretches to get you started, or ask your healthcare team about techniques that are best for your circumstances. Tell your healthcare professional or physical therapist if you have sharp or electriclike pain while stretching.

Next steps if pain persists

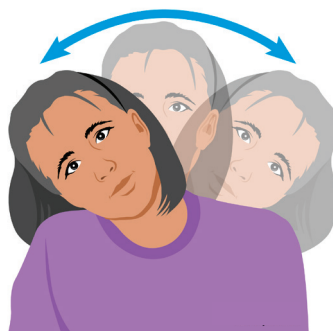
If neck pain doesn't respond to the basic care steps above within two weeks, more treatment options may be considered.

Physical therapy is the most effective treatment option for neck pain. Physical therapy may include targeted exercises, manual therapy techniques and education about how to take care of your spine. Learning these exercises and then applying them over time is the primary factor in reducing future neck problems.

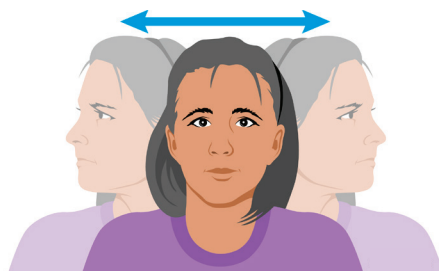
Prescription medications — such as pain medications, muscle relaxants or low-dose antidepressants — may provide enough pain relief to allow for better sleep and physical activity.

Other therapies that may help include trigger point injections, gentle spinal manipulation, injections at the facet joints or acupuncture. However, these techniques typically work best on a foundation of strength, posture and functional improvement gained through physical therapy. ■

STRETCHING EXERCISES



Neck tilt — Gently tip your head to one side and hold for at least 30 seconds. Then gently tip to the other side and hold.



Neck rotation — Slowly rotate your head from side to side, keeping your chin level as you turn. Hold at each side for at least 30 seconds. For an added stretch, use your fingertips to gently press your chin in the direction of the stretch.

HEALTH TIPS

BEATING BAD BREATH

Halitosis — the dreaded bad breath — can be a symptom of minor or sometimes serious health concerns. The most common cause is odor-producing bacteria trapped on the uneven surface of the tongue or on the teeth or dentures. Other sources include tooth decay, faulty fillings and gum disease, which can create pockets for bacteria to gather. Conditions such as gastroesophageal reflux disease and diabetes also can contribute to breath odor.

To discourage bad breath:

- **Floss daily** — Brushing after you eat and flossing at least once a day serve to remove decaying material from between your teeth and prevent gum disease. Similarly for denture wearers, daily cleaning ensures the removal of food particles that harbor bacteria.
- **Brush your tongue** — Use your toothbrush or a tongue scraper to remove bacteria from your tongue, particularly in the back.
- **Drink water** — Since saliva has antiseptic properties, keeping your mouth moist is beneficial.
- **Chew gum** — Another way to stimulate saliva production is to chew gum occasionally, preferably sugarless varieties. Gum also can help mask any odors.
- **Avoid common culprits** — Odors from certain foods or substances tend to linger in the mouth. These include onions, garlic, coffee, alcohol and tobacco. Even eating a lot of sugary foods is linked to developing bad breath.
- **Schedule dental checkups twice a year** — Your dental team can check for potential issues and provide a good cleaning at the same time.

If the issue persists, consult your dentist or primary healthcare team to determine if underlying health conditions are at play. ■

Relieving pain with acupuncture

Getting the most from each session

During the past several decades, acupuncture has gone from the fringes to the mainstream. More than 13,000 studies have been conducted in 60 countries to examine acupuncture as a therapy for pain, stroke, mood disorders, sleep disorders, inflammation and many other conditions. It's now one of the most commonly available therapies worldwide, with an estimated 3 million American adults undergoing treatments each year.

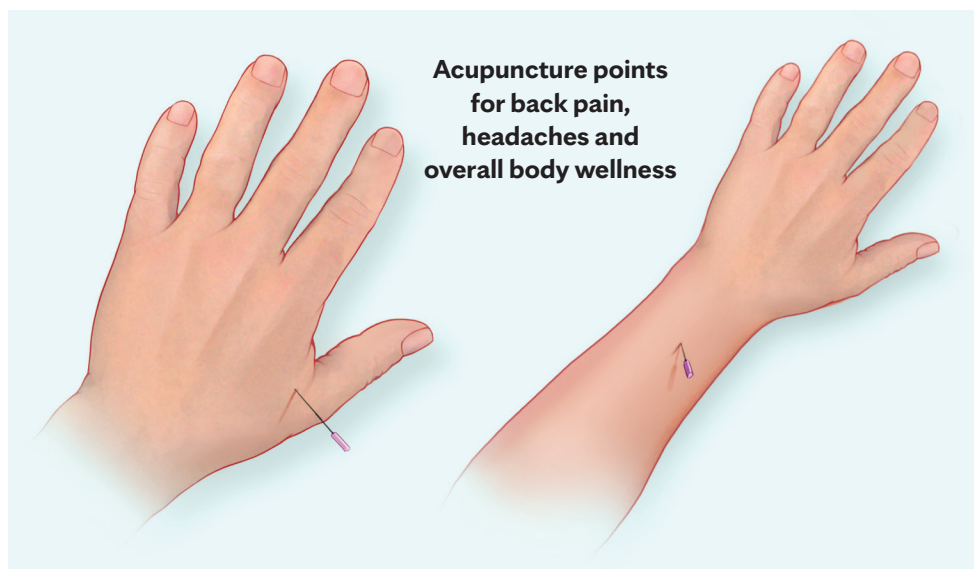
However, until recently, if you were interested in trying acupuncture, you likely would have had to pay for the therapy out of pocket. This changed in early 2020 when the Centers for Medicare & Medicaid Services (CMS) decided to cover acupuncture for people with chronic low back pain. Medicare now covers between 12 and 20 treatments a year, depending on how you respond to the therapy.

“In the past, people would come to us as their last resort. Now, many of them are seeing us as an early course of action,” says Sara Bublitz, a licensed acupuncturist at Mayo Clinic in Rochester, Minnesota.

About acupuncture

During a typical visit, an acupuncturist asks questions and performs a physical exam. Then you rest in a chair or on a table as the acupuncturist inserts about 10 to 20 thin needles into specific areas of your body. For example, if you need help with insomnia, your acupuncturist is likely to strategically place needles at points in your feet and ankles.

The solid acupuncture needles are as thin as human hair. They glide into tissue, and most people experience only minimal sensation. The acupuncturist may gently move or twirl the needles after placement or apply heat or mild electrical pulses to the needles. Or an acupuncturist might include other therapies —



such as an infrared heat lamp — to reduce discomfort and help you relax.

Once the needles are in place, you may rest for at least 15 minutes. “During this resting time, the body calms the nervous system and releases pain-relieving hormones,” says Bublitz.

Pain-relieving benefits

The body's natural painkillers, known as endogenous opioids, may play a key role in how acupuncture helps treat pain. Researchers found that acupuncture increases the number of opioid receptors in the brain. Researchers also found that acupuncture can produce anti-inflammatory effects by balancing immune system functions.

Evidence shows that acupuncture can help treat different types of pain:

- Chronic neck pain.
- Chronic and acute low back pain.
- Knee pain.
- Dental pain.
- Osteoarthritis.
- Labor pain.
- Sciatica.
- Menstrual cramps.
- Headaches, including migraine.

The therapy also can be used on people recovering from joint replacement surgery, says Bublitz. Rather than needling the painful surgical site, a practitioner inserts needles into another area of the body.

The therapy seems to have long-lasting effects. An analysis of data from 20 studies and several thousand people dealing with painful conditions — such as headaches, osteoarthritis, and back and neck pain — showed that the beneficial effects of acupuncture lasted even after the sessions were stopped, in many cases up to a year.

Additional health effects

Medicare covers acupuncture therapy only for back pain. However, the therapy also has been shown to be effective for several other conditions, including:

- *Side effects of cancer treatment* — Acupuncture can reduce nausea and vomiting in people receiving chemotherapy. This helps them keep food down — and therefore improves their nutrition intake. Acupuncture also may help ease pain caused by cancer and chemotherapy. After analyzing 227 relevant studies, Mayo Clinic researchers concluded that acupuncture can ease joint, musculoskeletal and cancer pain.
- *Irregular heart rhythms* — A Mayo Clinic study used acupuncture to reduce the incidents of irregular heartbeats (arrhythmia) in people recovering from heart surgery. Researchers used acupuncture on 138 people and found that it reduced arrhythmia, decreased blood pressure and lowered heart rate.

- *Excessive nighttime urination* — When researchers crunched the data from seven studies, they found that acupuncture worked as effectively as common prescription medicines for treating overactive bladder.
- *Substance misuse* — In a Chinese study, people with opioid use disorder underwent 25 acupuncture sessions over eight weeks. Other participants received sham acupuncture, using a device that made it feel as if a needle had been inserted when it hadn't. More participants who received true acupuncture treatments versus the sham treatments were able to reduce their use of methadone, a medicine that can be used to prevent opioid withdrawal. The true acupuncture treatments also were more effective at reducing cravings for opioids.

Anecdotal evidence also points to improvements in overall well-being.

“Acupuncture will help you feel better in so many other ways,” says Bublitz. “Most people notice their sleep improves. They also have more

energy and an improvement in their mood. In addition, because they have less pain, it may allow them to be more physically active or lose weight.”

For best results

To find a local acupuncturist, contact your local hospital or health network to see if acupuncturists are on staff. You also can search a free database of board-certified, licensed acupuncturists available at www.nccaom.org, the website for the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM).

To get the most out of each treatment session, use this advice:

- *Be prepared to relax* — Set aside at least 15 minutes to rest with the needles inserted. “Use it as your nap or meditative time to help your nervous system relax,” says Bublitz.
- *If something hurts, speak up* — Your acupuncturist can help you adjust your body to accommodate any pain concerns. You might be face down, face up, resting on your side or sitting in a chair.

“An acupuncturist can modify treatments to support you in whatever position is most comfortable for you,” says Bublitz.

- *Start with weekly sessions* — Then, after the first 4 to 6 treatments, when you are feeling better, consider coming in less often. “The more regularly you come in, especially in the beginning, the faster you feel better,” says Bublitz. In general, most conditions can be treated with 6 to 12 sessions.
- *Take it easy during the first few hours after your treatment* — That means skipping the gym as well as physically taxing errands. “Most people tell me that when they rest right after acupuncture and don't rush to do their chores, they feel way better and the results last longer,” says Bublitz. “The treatment needs time to sink in.”
- *Follow up with heat* — After your session, apply a heating pad to any sore areas to increase circulation. Use heat for 15 to 20 minutes, repeating as needed. ■

NEWS AND OUR VIEWS

DON'T DISCOUNT MELANOMA RISK IN BROWN OR BLACK SKIN

Melanoma, which accounts for only about 1% of skin cancers, causes the majority of skin cancer deaths. Although this cancer is found much more often in people with light complexions, a Mayo Clinic study reveals that when melanoma is diagnosed in people with Black or brown skin, it's frequently detected later — often once it has spread.

The study, published in the *Journal of Surgical Oncology*, analyzed the health information of almost 500,000 U.S. adults with melanoma. The data showed that white adults had melanomas that were located largely on the trunk, head or neck, whereas Black adults tended to have more melanoma on the arms, legs, hands or feet. In addition, Black adults were three times more likely to be diagnosed with cancer that had spread to nearby lymph nodes

or other tissues close to the melanoma. This is referred to as stage 3 melanoma.

Outcomes also differed based on sex. The research found that Black women with melanoma fared better than Black men did. Men tended to be older at diagnosis and were more likely to have cancer that had spread to their lymph nodes compared with women. This translated to worse survival rates. Black men with stage 3 melanoma had only a 42% chance of surviving for five years, compared with 71% for Black women.

Black adults currently make up just 1% of people diagnosed with melanoma in the U.S., but the incidence is increasing. The study's results confirm that vigilance in early screening is needed, particularly for Black men. It's advised that all people, regardless of skin color, become familiar with their skin and report notable changes to their healthcare teams.

Periodically check your skin from head to toe. If some areas are hard to see, consider using a hand-held mirror or asking a partner to check for you. This includes examining areas such as the palms, soles, groin, buttocks and under the fingernails. People with Black or brown skin are more likely to develop a subtype of melanoma in areas that aren't typically exposed to the sun.

The American Academy of Dermatology recommends that people of color look specifically for:

- A dark spot, growth or darker patch of skin that is growing, bleeding or changing in any way.
- A sore that won't heal — or heals and returns.
- A sore that appears in a scar or on skin that was injured in the past.
- A patch of skin that feels rough and dry.
- A dark line underneath or around a fingernail or toenail. ■

Actinic keratosis

Skin spots that develop over time

You've accepted that your hairline has shifted during this past decade. But those rough, scaly patches high on your forehead? Those are new, and even with vigilant moisturizing, they aren't improving. A trip to the clinic yields a diagnosis of actinic keratosis.

Actinic keratosis results from an overgrowth of keratin, a protein in the skin. It's caused by exposure to ultraviolet (UV) rays, typically from the sun. It affects about 14% of people and, in some cases, can develop into squamous cell carcinoma, a type of skin cancer. This progression to cancer is somewhat rare but is more likely when actinic keratoses are left untreated.

Rough, scaly patches

Actinic keratoses may appear as rough, scaly patches or crusts on the top layer of the skin. The lesions may range in color, including white, pink, red, gray and flesh-colored, and are darker on Black and brown skin tones. They're usually 1 inch or less in size and are found primarily on areas exposed to the sun, including the face, lips, ears, back of the hands, forearms, scalp and neck. There may be a single lesion but often there are multiple. Actinic keratoses take years to develop and usually first appear in older adults. The patches grow slowly and usually are not itchy or painful.

People most likely to develop actinic keratoses have one or more risk factors, including:

- A history of frequent or intense sun exposure. This may include spending a lot of time outdoors in the summer or living in an area with year-round sun.
- Pale skin.
- Blond or red hair, especially when coupled with blue, hazel or green eyes. Baldness also significantly increases risk.
- A tendency to freckle or burn when exposed to sunlight.

- A weak immune system as a result of chemotherapy, HIV/AIDS or an organ transplant.

Treatments tend to be effective

Early treatment can eliminate almost all actinic keratoses before they have the chance to become skin cancer. Several approaches can be used in a medical clinic to remove actinic keratoses, including:

- **Freezing (cryotherapy)** — For this procedure, a healthcare professional will apply liquid nitrogen to the affected skin. This causes a freezing injury to the keratosis, which leads to blistering or peeling. As your skin heals, the damaged cells slough off, allowing new skin to appear. Cryotherapy is the most commonly used treatment. It takes only a few minutes and can be done in your care team's office. Side effects may include blisters, scarring, changes to skin texture, infection and changes in skin color of the affected area.
- **Medications** — If you have several actinic keratoses in a cluster or "field" area of skin, your care team might prescribe a medicated cream or gel — such as fluorouracil (Carac, Efudex, others), imiquimod (Zyclara) or diclofenac — to remove them. This is sometimes called a field treatment. These products typically cause inflamed skin, scaling and a burning sensation for a few weeks. A major study found that fluorouracil did significantly better than other medications in removing the lesions and preventing them from becoming cancer over a year of use.
- **Photodynamic therapy** — A dermatologist might apply a light-sensitive chemical solution to the entire area of affected skin and then expose it to a special light that will destroy the actinic keratoses. Side effects may include inflamed skin, swelling and a burning sensation during therapy.

Talk to your care team about your treatment options. The procedures vary in the number of sessions required.



Actinic keratoses may appear as rough, scaly patches or crusts on the top layer of the skin. The lesions may range in color, including white, pink, red, gray and flesh-colored, depending on your skin tone.

Side effects and the risk of scarring also are important considerations. Actinic keratoses are usually very responsive to treatment. After treatment, you'll likely have regular follow-ups to watch for new lesions.

Sun safety after treatment is critical. To minimize the risk of developing further actinic keratoses, regularly use sunscreen and sun-protective clothing to protect your skin from harmful UV rays. ■

Chocolate

Pros and cons for your health

On an island just off the coast of Panama lives an indigenous tribe called the Kuna, who outlive other people in Panama. Despite their relatively high-salt diet, the Kuna tend to have lower blood pressure than do other people in Panama. In addition, they experience fewer heart attacks and they're less likely to be diagnosed with type 2 diabetes or cancer.

For several decades, researchers have traveled to this area searching for the Kuna tribe's secret to good health. After much study, these scientists determined that what set the Kuna people apart wasn't what they ate. Instead, it likely stemmed from what they drank — more than five cups of cocoa daily.

Since these scientists stumbled upon this connection, they've been trying to figure out whether the consumption of cocoa — and the chocolate made from it — benefits overall health.

By any other name as sweet?

It's thought that cocoa may benefit health for two reasons. First, it's rich in flavanols, antioxidants believed to protect blood vessels from aging. Second, it contains theobromine, a bitter-tasting stimulant that may reduce inflammation.

People often use the words “cacao,” “cocoa” and “chocolate” interchangeably. However, they mean slightly different things. To make cocoa, manufacturers dry, roast and pulverize the beans from the cacao tree. Pure cocoa is very bitter. To mask its bitter flavor, manufacturers add sugar, milk, fat and other ingredients to create commercially available hot cocoa mixes and chocolate bars.

Potential health benefits

The research on chocolate and its health benefits has been mixed. One study that followed the eating habits of over 55,000 people determined that

rates of atrial fibrillation, an irregular heart rhythm, were lower in people who consumed chocolate more often. Another large, long-term study hinted that chocolate consumption might reduce the risk of having a heart attack.

However, those observational studies only show a correlation between chocolate consumption and health. They don't prove a cause-and-effect relationship. Randomized controlled trials are best for that.

The Cocoa Supplement and Multivitamin Outcomes Study (COSMOS) is one of the largest and longest-running randomized controlled trials to look at the relationship between chocolate consumption and health. In this trial, some of the over 21,000 participants consumed a supplement twice a day that contained 500 milligrams of cocoa flavanols. Other participants took placebo pills. During the study, participants who consumed the cocoa supplement experienced similar rates of heart attacks as did participants who took placebo pills. They also had similar rates of type 2 diabetes and performed similarly on tests of cognitive health.

However, the study participants who consumed the cocoa supplement were 27% less likely to die of heart-related events.

In a separate review of 35 randomized controlled trials involving more than 1,800 people, the consumption of flavanol-enriched cocoa led to a small, 2-millimeter of mercury (mm Hg) drop in blood pressure over an average of nine weeks.

Research vs. real life

The potential health benefits of chocolate are likely mild at best. In addition, they're difficult to attain by consuming store-bought chocolate. That's because the cocoa used in research differs significantly from chocolate sold commercially.

For example, the cocoa supplement in the COSMOS study contained 500 milligrams of flavanols. That's about five times more flavanols than most

people consume daily from all flavanol-rich foods and beverages — including tea, berries and grapes — combined. In store-bought chocolate, the addition of other ingredients — especially sugar and saturated fat — dramatically dilutes the cocoa content. This, in turn, reduces the amount of flavanols.

How to indulge

If you don't like chocolate, there's no compelling reason to force yourself to eat it. However, if you love this sweet treat, use the following advice to get the biggest health bang for your caloric buck.

- *Go dark* — The darker the chocolate, the less sugar and more cocoa and flavanols the chocolate contains. Despite its name, white chocolate contains no cocoa at all. Look for products that list the percentage of cacao on the label. The higher the percentage listed, the more flavanols and less sugar in the product. Similarly, if you drink hot chocolate, make it from unsweetened 100% cocoa.
- *Keep portions in check* — Keep in mind that even the darkest bars of chocolate still contain a lot of calories and sugar. For example, one large 101-gram, 70% to 85% cacao bar of chocolate comes with 604 calories, 43 grams of fat and 24 grams of sugar. For this reason, keep portions small and think of chocolate as an occasional treat. Yes, chocolate is likely better for your health than other types of candy. However, it's no substitute for minimally processed foods such as produce, legumes, nuts, seeds, eggs, poultry and fish.
- *Consume other flavanol-rich foods* — In addition to cocoa, black and green tea, cinnamon, grapes, and apples come packed with flavanols. Many different plant foods — including most fruits, vegetables and herbs — contain numerous other health-promoting substances as well. So rather than zeroing in only on chocolate, try to eat a wide variety of plant foods. ■

Second opinion

Q I've heard that physical exertion in cold weather can cause heart problems, but I can't convince my husband to let someone else shovel snow for us. Can you please help?

A You are correct: Heart events such as heart attacks happen more often in cold temperatures, especially when people have existing heart problems and try to exercise in frosty conditions. A major international study published in 2023 found that extreme heat and extreme cold both elevate the risk of death from heart disease and related conditions, with cold being significantly riskier than heat.

When you're outside in the cold, your nervous system adapts to conserve heat within the core of your body while still supplying blood and oxygen to vital organs and muscles. To do this, blood vessels narrow — a process called vasoconstriction. This narrowing causes pressure to build throughout the body's circulatory system. It puts stress on the heart, which must work harder to pump the same amount of blood.

Exercise causes additional stress on the heart, which in most cases is healthy and encouraged. But it can quickly turn dangerous given the layers of stress you experience in cold weather, especially if you have heart disease or related conditions. Blood sometimes responds to cold by getting slightly thicker and more likely to clot, and clotting is related to emergency events such as heart attack and stroke.

If you have a heart condition, consult your healthcare team about whether outdoor exertion is OK in winter. You may want to propose a compromise, where your husband keeps doing warm-weather tasks, such as cutting grass and raking, in exchange for letting someone else handle winter chores.

Here are other tips to stay safe:

- **Pace yourself** — Set a repeating timer for 10 minutes or less so you have a reminder to take breaks. Warm yourself and allow your heart rate to return to its resting state.

- **Stay hydrated** — Drink water or electrolyte drinks before, during and after your shoveling session.
- **Start early in a snowfall** — Freshly fallen snow is lighter than snow that has started melting or has been moved by a plow.
- **Buddy up** — Make sure that someone else knows you're outside and will check in regularly. Have your smartphone fully charged to use in case of an emergency. ■

Q Many people I know say that physical therapy doesn't work for them, but when I ask if they continue to do the exercises at home, they usually say no. Any ideas about helping them stick to a PT program for the long haul?

A Your experience is actually quite common. At-home exercise is a component of treatment plans for a variety of conditions, including lower back pain, joint replacement and cancer. The regimen may be for weeks, months or even years, and it often requires daily practice. Unfortunately, surveys have found that up to 70% of people given an at-home exercise program by a medical professional don't fully follow it. Sticking to a rehabilitation plan reduces the risk of the original condition returning. It also can guard against complications such as balance and weight concerns.

Physical therapists are working to address the challenge of maintaining motivation for the entire length of a rehabilitation plan. Every situation is different, but some common themes apply. "It's important to approach a home exercise program like any new habit," says Pamela Kline, a physical therapist at Mayo Clinic in Phoenix, Arizona. "Practice it every day and see the rewards of your commitment!"

To get the most out of rehabilitation, devote part of your daily schedule to your exercises. If you are not in the habit of regular exercise or if you have fatigue or a mood disorder, you may have more difficulty sticking to a routine. If so, ask for support.

Sometimes, a routine may seem too complicated and time-consuming. If so, work with your healthcare team to prioritize the aspects of your plan that will make the biggest impact. Dr. Kline suggests asking which two or three at-home exercises are most important and then focusing on completing those regularly. Add more exercises as you develop the habit and get stronger.

Regular check-ins with your care team can help you stay on track. You may want to suggest changes, such as more-frequent meetings, if this would help you. Ask about virtual visits. Other options might include having regular check-ins on your health portal or using a smartphone app. Enlisting supportive family or friends also can help with encouragement and motivation. ■

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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