Blood clots in the lungs

Prompt treatment may be lifesaving

After your hip replacement surgery, it took a couple of days longer than expected before you could leave the hospital. But, while discussing the rehabilitation plan with your physical therapist, you suddenly felt short of breath. Inhaling was painful.

The next thing you remember was being told you had blood clots in your lungs and that treatment was under way.

Pulmonary embolism occurs when critical blood flow to lung tissue is cut off by a blockage in one or more arteries in your lungs. Usually, the blockage is due to blood clot fragments (emboli) from elsewhere that traveled through the bloodstream to your lungs. Without prompt recognition and treatment, pulmonary embolism can be fatal.

Knowing the signs and symptoms and getting prompt medical treatment can be lifesaving.

Breakaway trouble

Normally, blood circulates freely through your arteries and veins. With each heartbeat, blood is pumped from the right side of your heart to your lungs, where it’s infused with oxygen. The oxygen-rich blood is then circulated to your heart’s left side and pumped out to the rest of your body.

Pulmonary embolism occurs when one or more blood clot fragments (emboli) become lodged in your lung arteries and cut off blood flow to lung tissue.
However, that smooth circulation of blood can be jeopardized by the formation of a blood clot (thrombus). Most often, these potentially dangerous clots form in the large veins of the leg or pelvis that are farthest from the skin’s surface — this is called deep vein thrombosis (DVT). Clots in the legs or pelvis may produce no signs or symptoms and go unnoticed. Common symptoms, if they occur, include redness, swelling or pain in your leg. If you notice any of these, see your doctor to have it evaluated. If clot pieces break away from a deep vein clot, they can end up in your lungs, resulting in pulmonary embolism.

Know your risk

Pulmonary embolism occurs equally in men and women, and risk increases with age — especially after age 60. A family history of clotting problems elevates your risk of blood clots.

Risk of developing blood clots that result in pulmonary embolism also may be increased by:
- **Long periods of inactivity** — Sitting during lengthy plane or car trips slows blood flow in your veins. So does bed rest for an extended time, such as after surgery, injury or during a serious illness.
- **Blood vessel changes that occur with age** — Tiny valves in larger veins that help blood move in the right direction tend to deteriorate with age. When those valves degrade, blood may pool and possibly form clots.
- **Certain medical conditions** — If you’ve had a previous blood clot, you’re at increased risk of developing another. Hospitalization for major surgery or a serious medical illness are major risk factors, along with extended bed rest, trauma and bone fracture, neurological disorders that impair leg use, autoimmune disorders, and previous DVT or clots in veins closer to the skin’s surface. Active cancer and chemotherapy also increase risk. Some cancers — especially cancers in the pancreas, brain and lung, as well as lymphoma — influence substances in the blood that promote clotting, and chemotherapy may further increase risk. Breast, colorectal and ovarian cancers also elevate risk. In women being treated for breast cancer, clotting risk is higher for those taking tamoxifen or raloxifene.

**Surgery** — In addition to risk from extended bed rest, some types of surgery greatly increase clotting risk on their own. These include orthopedic procedures — particularly involving the hip, knee or pelvis — major neurosurgery, and cancer surgery.

**Certain lifestyle factors** — Excess weight increases risk. Smoking may predispose some people to clot formation.

In addition, women of childbearing age have increased clotting risk during and after pregnancy or if they take oral contraceptives.

Need to know

Signs and symptoms of pulmonary embolism vary with how much of your lung is affected and the size, number and location of clots. Overall health comes into play, too — especially the presence or absence of underlying lung or heart disease. People who have chronic heart or lung disease and have pulmonary embolism are more likely to develop signs and symptoms.

If you experience any of the following, seek immediate medical care:
- **Sudden breathlessness**, whether you’re active or at rest
- **Sharp chest pain** that may become worse when you inhale
- **Wheezing**
- **Clammy or bluish-colored skin**
- **Rapid or irregular heartbeat**
- **Excessive sweating**
- **Weak pulse**

Some people with pulmonary embolism have no signs or symptoms other than possibly those related to DVT, such as leg pain and swelling. Pulmonary embolism is usually a medical emergency, and immediate care may mean the difference between life and death. However, it can be difficult to detect — pulmonary embolism may mimic something else, such as heart attack, heart failure or pneumonia. Narrowing down the cause of your symptoms may require several tests.

Blood work may include a D-dimer test. D dimer is a substance that’s released when a blood clot breaks down. High levels of D dimer may suggest a likelihood of a blood clot somewhere, but it’s often due to something other than pulmonary embolism. A low D dimer level means it’s less likely the problem is related to pulmonary embolism.

Computerized tomography (CT) pulmonary angiogram is among the tests that are most commonly done. This test is accurate and widely available. Other than injection of contrast material, CT pulmonary angiogram is noninvasive. Another test, called a venous duplex scan, uses ultrasound to check for blood clots.

MAYO CLINIC HEALTH LETTER
Once pulmonary embolism is identified, prompt treatment is essential to prevent serious complications or death. Generally, the goal is to stop any clots in the lungs from getting bigger and to keep new clots from forming. Drugs to treat pulmonary embolism include:

- **Blood thinners (anticoagulants)** — While these may cause bleeding and easy bruising, they prevent new clots by decreasing your blood’s ability to clot. Heparin is a fast-acting anticoagulant that may be given intravenously.

  Another form of the drug — low-molecular-weight heparin — is used most often and given as an injection below the skin one or two times a day. The oral drug warfarin (Coumadin) also may be used, although it takes several days to start working. Once warfarin is effective, heparin may be discontinued.

  How long you remain on blood thinners depends on the cause of the pulmonary embolism and your overall health. Generally, anticoagulants are continued for about three months if it’s a first episode and a recognized risk factor contributed to the event. However, if blood clotting occurred for no apparent reason, there’s an underlying genetic clotting problem, or it’s a second episode, anticoagulants may be continued for six months or indefinitely. Decisions about ongoing treatment take into consideration risk of recurrence. If you’re at higher risk, blood thinners may be continued. Treatment is individualized and continuously re-evaluated to be sure bleeding risks don’t outweigh benefits.

- **Clot dissolvers (thrombolytics)** — Clots usually dissolve on their own. However, in life-threatening situations, thrombolytics can quickly dissolve blood clots. Thrombolytics are reserved for emergencies because they can cause sudden, severe bleeding.

  In certain cases, a thin tube (catheter) may be used to place a clot-trapping vena cava filter in the main vein leading from your leg to the right side of your heart. This may be done if blood thinners aren’t working or can’t be used.

  Ongoing restricted blood flow to the pulmonary arteries may occur due to scarring and narrowing of blood vessels from undissolved clots. In this case, major surgery to remove the blockage may be recommended.

### What you can do

There are some things you can do to help prevent clots that may lead to pulmonary embolism.

If you travel, be an active traveler. Rather than sit for long periods in a cramped position, take a walk. Move around the plane cabin once an hour or so as allowed. If you’re driving, stop every hour to get out and walk around the car a few times, do a few knee bends, or rise up and down on your toes.

When seated, flex and then relax different muscle groups in your legs. Flex, extend and rotate your ankles. Avoid sitting with your legs crossed for long periods. Ask your doctor if wearing properly fitted, specialized stockings (graduated compression stockings) during long travel days may be wise.

Drink plenty of fluids. Dehydration can contribute to blood clot development. Immobility due to hospitalization can be a particular concern. In that situation, ask your doctor or surgeon what steps are being taken to prevent blood clotting. Along with anticoagulant therapy, air compression cuffs may be used to help massage and squeeze leg veins. Wearing graduated compression stockings may help your veins move blood more efficiently.

As for taking aspirin, it’s effective in reducing the risk of recurrent heart attack and stroke, but the benefits of taking aspirin to reduce the risk of pulmonary embolism remains uncertain.

### Health tips

**Avoiding allergic skin reactions**

Contact dermatitis is an allergic skin reaction to something you’ve had contact with. The skin reaction is often characterized by a red, sore and itchy rash.

Among the more common causes of contact dermatitis are:

- Nickel (nickel sulfate hexahydrate) and cobalt chloride, metals commonly found in jewelry, clasps or buttons
- Fragrances often used in skin care products and perfume
- Neomycin sulfate and bacitracin, topical antibiotics found in first-aid creams and ointments
- Formaldehyde and quaternium 15, preservatives used in skin care products, paper products, paints, building materials, medications, household cleaners and fabric finishes

Patch testing can be done to confirm allergies. During a patch test, small quantities of potential allergens are applied to adhesive patches, which are then placed on your skin. If you’re allergic to a particular substance, you develop a reaction under the patch.

Once there’s a known cause for contact dermatitis, treatment primarily involves avoiding contact with the offending substance.

Mild to moderate rashes may be helped with nonprescription hydrocortisone creams or by applying wet dressings to relieve redness and itching. If your symptoms persist, your doctor may prescribe a higher strength corticosteroid cream. For a severe rash, your doctor may prescribe oral corticosteroids.
News and our views

Active body and mind cut risk of cognitive decline
Older adults who are both physically and mentally active may have a reduced risk of developing mild cognitive impairment (MCI), according to findings published in the May 2012 issue of Mayo Clinic Proceedings. The findings are based on data from the Mayo Clinic Study of Aging, which is an ongoing population-based study of normal aging and mild cognitive impairment.

Mild cognitive impairment falls between the cognitive changes that occur with normal aging and those associated with dementia. However, people with MCI have a much higher risk of developing dementia.

The study included a random sample of more than 900 adults, ranging in age from 70 to 93. Each participant completed a questionnaire about cognitive activities including computer use and physical exercise. Later, it was determined that 109 participants had MCI and 817 were cognitively normal. Researchers noted that those involved in moderate physical activity — such as brisk walking, regular biking, swimming or playing golf without a cart — as well as computer use in later life, had a 64 percent decrease in their odds of having MCI compared with those who didn’t engage in those types of activities.

Although the results are preliminary, Mayo Clinic doctors say they hope these findings can be tested and looked at in a larger study. Lifestyle factors such as physical exercise and mentally stimulating activities are increasingly being recognized as important elements in the prevention of dementia.

Fruits, vegetables reduce stroke risk: It’s quantity, not type
Eating fruits and vegetables may reduce the risk of stroke caused by a blockage of blood flow to the brain, according to a review of research published in the Jan. 28, 2006, issue of The Lancet.

When compared with people who consume fewer than three servings of fruits and vegetables a day, the research found that people who consume:
- Three to five servings of fruits and vegetables a day have an 11 percent reduced risk of stroke
- More than five servings a day have a 26 percent reduced risk of stroke

Since that study, several other studies have attempted to identify which fruits and vegetables are responsible for the risk reduction.

Two recent studies in the journal Stroke offer inconclusive direction. One found that oranges and grapefruit are associated with a 19 percent reduction in stroke risk in women. However, you would need to eat about nine oranges or drink several glasses of juice a day to reap the full benefit.

The other study found that a high intake of “white” fruits and vegetables — apples, pears, bananas, cauliflower and others — was most highly associated with reduced risk of stroke compared with fruits and vegetables of other colors. Orange-colored fruits and vegetables offered no protection.

While research zigzags, Mayo Clinic nutrition experts say that it’s best to focus on the fundamentals: Make fruits, vegetables and other plant-based foods such as beans, nuts and whole grains your primary source of nutrition. When you enjoy five or more servings each day of a wide variety of plant foods, in addition to healthy lifestyle changes, you’ll reduce your risk of stroke and many other serious diseases, as well.

Devices for pain

When all else fails

The surgery on your lower back only provided partial relief for the searing nerve pain that radiates down your leg. Unfortunately, your doctor says additional surgery isn’t likely to provide additional benefit. Pain medications and physical therapy have helped some, but it hasn’t been enough.

Other options

There are several devices for pain relief from certain types of chronic nerve pain. Some rely on stimulating nerves with a mild electrical current. The concept with these is similar to transcutaneous electrical nerve stimulation (TENS) devices, but they are implanted into the body rather than being placed on the skin, as are TENS devices.

Still other implanted devices deliver pain-relieving medication directly into the spinal canal.

These are usually considered only after more-conservative options have failed. They seldom, if ever, provide complete pain relief. However, when they work, they can change debilitating pain into tolerable, manageable pain that allows you to function.

Nerve stimulators

Nerve stimulation involves directing electrical impulses along a nerve to block or override pain impulses traveling along the same nerve or nerves. These electrical impulses may produce a tingling sensation that can be directed to where you feel pain. Nerve stimulation devices come in two main forms:
- Spinal cord stimulators — With these, a wire is placed in the epidural space within the spinal canal. It provides electrical stimulation on an area of the spinal column called the dorsal horn, which is where sensory nerves from the spinal cord are located.
Spinal cord stimulators are Food and Drug Administration (FDA) approved for conditions that involve pain generated from damaged or dysfunctional nerves of the trunk, legs or arms. This includes problems such as sciatic nerve pain that continues after back surgery, peripheral neuropathy, or a condition called complex regional pain syndrome, which usually results in leg or arm pain.

Spinal cord stimulators have also been successfully used to reduce heart-related pain (angina). However, the FDA hasn’t approved this use.

- **Peripheral nerve stimulators** — These are placed along nerves that branch off from the spinal cord. They may be used for pain arising from numerous nerve problems, including remaining leg pain after back surgery, postherpetic neuralgia and some types of headaches.

Peripheral nerve stimulators are more targeted to a specific nerve or group of nerves than are spinal cord stimulators. Often, spinal cord and peripheral nerve stimulators are implanted together to achieve better pain relief. It’s usually harder to gain insurance approval for peripheral nerve stimulators than it is for spinal cord stimulators. Spinal cord stimulators are a newer use of technology that hasn’t been approved by the FDA.

**What’s appropriate?**

Determining if one or both nerve stimulation devices are right for you depends on many factors, including the cause of your pain, its location, your overall health and your ability to care for an implanted device. If you’re a candidate for either device, you’ll likely undergo a stimulation test with a temporarily placed wire to find out how well you respond to the therapy. There may be exceptions, such as peripheral nerve stimulators for migraine, which are often placed without a trial.

If the device had a beneficial effect during the test, the wire lead and the electrical generator unit can be fully implanted under the skin during a separate surgical procedure. Electrical generators have batteries that can be recharged through the skin, and they often come with a remote control that can increase or decrease the amount of stimulation you receive.

**Drug delivery devices**

Medication pumps — technically called intrathecal drug delivery systems — deliver pain medication directly to the fluid that surrounds the spinal cord. They’re most often used to relieve pain from cancer or to relieve chronic back pain that’s unresponsive to more-conservative therapies.

They may also be used as last-resort option for certain types of severe chronic pain. They may be considered if a nerve stimulator fails to provide relief — or rarely they may be used in conjunction with a nerve stimulator.

Medication pumps consist of a small flexible catheter that’s placed in the spinal fluid. The catheter is connected to a drug infusion pump that’s implanted into your lower abdomen.

The pump is programmed to dispense the drug it contains at a set rate. The pump can be refilled with an injection through your skin and into a sealed port on the device. Pain drugs used in a pump may include opioid drugs or local anesthetics. The muscle relaxant baclofen (Gablofen, Lioresal) may be used when pain arises from muscle spasm due to problems such as spinal cord injury or multiple sclerosis. Other medications, such as clonidine (Duraclon), have been found to help nerve pain and may also be used.

A key limitation of medication pumps is the development of tolerance to opioids or anesthetics. Dosages of pain medication can be increased as tolerance rises, but there are limits. That’s why this is generally used only by people with limited life expectancy or those in extreme circumstances.

**What to expect**

Surgery to implant a pain device carries at least some risk of complications such as infection. In addition, drugs delivered with a medication pump can cause side effects, especially if dosages need to be increased.

Nerve stimulators and medication pumps can work well in the right situations, but even when effective, a reasonable goal with these devices is to reduce pain by 50 percent.

Still, this may be enough to make pain-reducing physical therapy achievable, and may also be combined with other pain relief tactics, such as using biofeedback relaxation or oral medications for pain. ☐
Basic pain relievers

It’s wise to use caution

It’s a new day, and the usual aches and pains of aging haven’t gone away. But you sure feel a lot better after you take two nonprescription ibuprofen tablets with breakfast. There’s no harm in this, is there?

Actually, it’s possible that there could be some harm, as there’s no medication that’s without some risk. This includes medicine-cabinet staples such as acetaminophen (Tylenol, others), aspirin, ibuprofen (Advil, Motrin IB) and naproxen sodium (Aleve).

When used appropriately, pain relievers can be very effective at reducing pain and improving quality of life. Still — as with all medications — it’s wise to be cautious, using the lowest effective dose for the shortest time possible.

The potential for harm climbs as you take higher doses of pain relievers, or take pain relievers for longer periods of time. This is especially true in older adults, as natural declines in organ function and resiliency — not to mention potential organ disease — result in greater susceptibility to side effects.

If you use low doses of pain relievers on a daily or near daily basis, you may want to consider alternate ways of finding pain relief to help reduce the amount of pain medications that you need to take.

Options for muscle and joint pain may include maintaining a healthy weight, reducing stress, using hot or cold packs, avoiding aggravation of a joint or muscle, or developing an exercise plan.

If you feel the need to take low doses of pain medication, talk to your doctor about weighing the benefits and risks based on your health history — and how to recognize early signs of trouble. Use the guide below as a way to begin assessing the potential risks of frequent, low-dose pain reliever use.

<table>
<thead>
<tr>
<th>Pain reliever</th>
<th>Key facts</th>
<th>Health risks when taken frequently at low doses</th>
<th>Key drug interaction risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acetaminophen (Tylenol, others)</strong></td>
<td>Generally, this is the safest choice of pain reliever when taken at or below the recommended doses.</td>
<td>Taking one to two 500-milligram pills a day is quite safe for most people. However, risks of liver damage may increase for people with liver problems, those who exceed the maximum recommended daily dose or those who have more than three alcoholic drinks a day.</td>
<td>Many prescription painkillers and cold and flu drugs contain acetaminophen. Account for acetaminophen “hidden” in these types of medications when adding up total daily intake.</td>
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<tr>
<td><strong>Aspirin</strong></td>
<td>In addition to pain relief, low doses prevent blood clots that can cause heart attack or stroke.</td>
<td>Even 81 milligrams a day can increase risk of stomach bleeding. While aspirin can help prevent strokes due to blood clots, it may increase risk of stroke caused by bleeding — although this is uncommon.</td>
<td>If you take low-dose aspirin, avoid ibuprofen and naproxen to keep stomach-bleeding risk as low as possible. If you’re taking a medication such as warfarin (Coumadin) to prevent blood clots, avoid taking aspirin unless you have been told otherwise by your doctor. Taking both can increase the risk of unwanted bleeding.</td>
</tr>
<tr>
<td><strong>Ibuprofen (Advil, Motrin IB)</strong></td>
<td>In addition to providing pain relief, these drugs help to reduce inflammation.</td>
<td>These can increase risk of stomach bleeding. There is also a low but increased risk of worsening high blood pressure and kidney problems. An increased heart attack risk is possibly associated with higher doses, but you may want to avoid them altogether if you’ve had or are at high risk of heart attack.</td>
<td>Avoid taking ibuprofen or naproxen if you are taking a medication such as warfarin (Coumadin) or aspirin to prevent blood clots. Taking ibuprofen or naproxen with angiotensin-converting enzyme (ACE) inhibitors may increase your risk of kidney problems.</td>
</tr>
<tr>
<td><strong>Naproxen sodium (Aleve)</strong></td>
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Core muscles

Strengthen and maintain for better stability

Every time you take a step or raise your arm to grab a bowl from a kitchen shelf, intricate muscle adjustments occur in the midsection of your body. These core muscle adjustments support your body's shift in balance, providing a stable foundation as you go about your daily activities.

Although you may not be aware of these intricate muscle changes that underlie everyday movements, don't overlook core muscle value and the importance of building and maintaining your core strength.

Center of gravity

Your core muscles are located around your midsection and pelvis. Some describe this group of 29 pairs of muscles as a centrally located muscular box.

The top of the box is formed by your diaphragm muscle, which is the large muscle located below your lungs. The base includes your pelvic floor muscles and the girdle of muscles surrounding your hips. Your abdominal muscles make up the front of your core muscle box. At the back are the paraspinal muscles — which run next to and support your spine — and the large gluteal muscles, on which you sit.

As you move about, your core muscles surround your center of gravity, support your spine and provide important stability. They provide a foundation for moving your arms and legs and are important in making these areas less prone to injury. For example, your knee joint has several muscles from the lower back and pelvis region that help provide stability when stepping down from one level to another — such as going down steps or stepping off a curb. If those core muscles aren't in condition, the mechanics of a stable landing may be impaired and the knee joint placed at a greater risk of injury.

Core values

Strong core muscles make it easier to do most physical activities, from the routine — such as folding laundry or bringing the groceries in from the car — to the more challenging, such as playing tennis, a round of golf or raking a lawn full of leaves. Core muscle strength can also help combat poor posture and low back pain.

You can build core muscle strength by doing exercises that use the midsection of your body without additional support. For instance, the simple act of balancing on one leg while keeping your back and pelvis stable activates your core muscles. One of the key abdominal core muscles is the transversus abdominis, which creates a sort of belt around your abdomen. It's the muscle you feel contracting when you cough. As you perform exercises designed for core strengthening, focus on tightening this deep abdominal muscle while breathing freely and deeply.

Proper technique needs to be the focus when doing core strengthening in order to avoid injury and receive the most benefit. To get started, you may wish to work with a trained professional, such as a personal trainer or physical therapist. Other opportunities for core work are classes such as Pilates, tai chi and yoga, which are often offered at community centers or gyms.

Getting to the core

The core-strength exercises described on this page can be done on a carpeted floor or mat. During each exercise, breathe freely and deeply — don't hold your breath, which can cause dangerous spikes in blood pressure. Start by repeating each exercise five times. As your core strength improves, build up to 10 to 15 repetitions. If you have back problems, osteoporosis or other health concerns, first talk with your doctor.

Pelvic tilt

The pelvic tilt can help to build core muscles.

To perform a pelvic tilt, lie on your back with your knees bent. Flatten your back against the floor by tightening your abdominal muscles and tilting your pelvis slightly toward your bellybutton. Hold five to 10 seconds then release. Repeat 10 to 15 times.

The bridge

The bridge exercise can help you to improve the core strength of several muscles in combination.

To perform the bridge exercise, lie on your back with your knees bent.

Keep your back in a neutral position — not arched and not pressed into the floor. Avoid tilting your hips. Tighten your abdominal muscles and, pushing through the heels, raise your hips off the floor until your hips are aligned with your knees and shoulders.

Hold for three deep breaths. Return to the starting position and repeat. Narrowing your arm position closer to your body increases the core challenge.
Second opinion

Q I’m 76 and an avid walker. Lately, though, I’ve noticed a burning sensation and pain on the ball of my foot when I walk or stand — it’s even worse if I’m barefoot or in socks. It feels like I’m walking on pebbles. The pain goes away when I’m off my feet. What might cause this?

A You may be describing a fairly common condition called metatarsalgia (met-uh-tahr-SAL-juh). It involves the metatarsal bones and joints to the toes of the foot, which are the five long bones that run from the arch in your foot to your toe joints.

Metatarsalgia can develop when something changes the normal working action (mechanics) of your foot. That change can place too much pressure on the metatarsals, especially the rounded ends (heads) of the metatarsals that connect with your toe bones. When that happens, it can lead to inflammation and pain around the metatarsal heads. The condition usually develops over time.

Sometimes, a single factor can lead to metatarsalgia, but more often it’s several factors. Among the possible problem-makers are poorly fitting shoes and high heels. Thin, worn-out soles with too much flexibility, hammertoes, excess weight, high arches or a second toe that’s longer than a big toe also can contribute. Another factor may be thinning of the fat pad on the ball of your foot, which is common with aging. Less cushioning makes the metatarsal heads more susceptible to trauma, inflammation and pain.

A family doctor or podiatrist can address the problem and determine whether you’re dealing with metatarsalgia or another condition that can cause the pain you describe. With metatarsalgia, simple measures — such as well-cushioned shoes, soft shoe inserts and metatarsal padding — often produce very good relief.

Q I recently had a kidney stone. My doctor said that part of the reason I got it was because I have too much calcium in my urine. So why didn’t my doctor tell me to consume less calcium?

A Calcium-based kidney stones are a mixture of calcium and other substances, most commonly a material called oxalate.

It seems logical that you could prevent stones that contain calcium by reducing your calcium intake. Indeed, in the past, reducing calcium intake was a commonly recommended preventive strategy.

But it’s now known that low dietary calcium intake increases kidney stone risk. In contrast, you can actually reduce risk of kidney stone development by meeting daily calcium recommendations based on your age and bone health. That may be because calcium appears to bind to oxalate in the gut, which keeps it from entering the blood and then the urinary tract. With less oxalate in urine, there’s less risk of developing a calcium-oxalate stone.

Dietary sources of calcium, such as dairy products, are the preferred way of getting daily calcium. Conversely, taking pills that contain calcium may slightly increase kidney stone risk. This increased risk of stones may be reduced if the calcium pills are taken with meals instead of on an empty stomach.

Have a question or comment?
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