

# MAYO CLINIC HEALTH LETTER

Reliable Information for a Healthier Life

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## Cataract surgery

### Choose the time

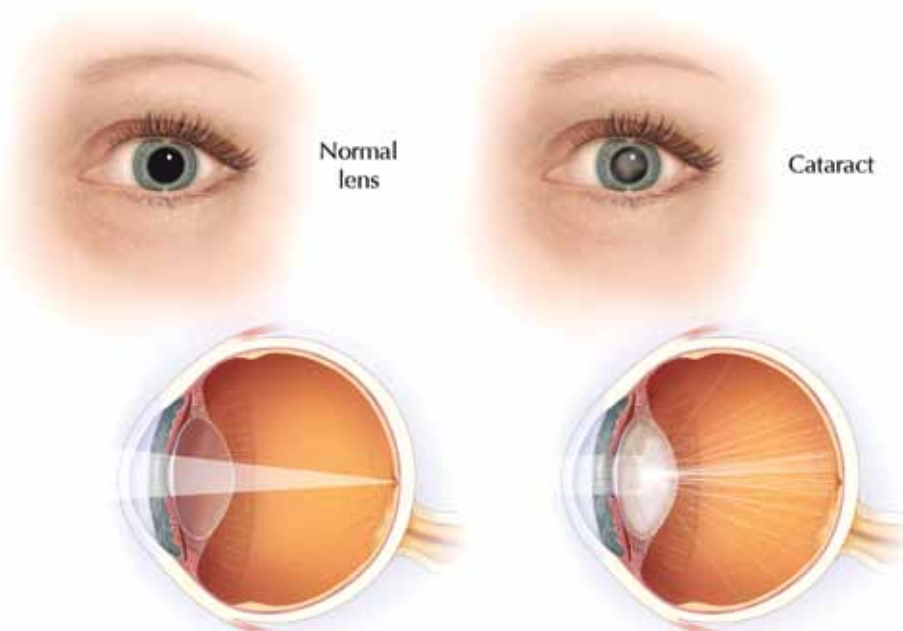
If you're an older adult, it may seem as if just about everyone your age is having cataract surgery. Some degree of vision clouding caused by cataracts occurs in most people as they age, with many experiencing significant vision loss. In fact, cataract surgery is the most common surgical procedure performed on U.S. adults older than 65.

The most common type of cataract surgery is an outpatient procedure, involving minimal anesthesia, tiny incisions, quick recovery and very high

success rates. Moreover, choosing when to have surgery is individualized and usually based on how much cataracts affect your life. If your vision is still acceptable, there's typically no rush to have surgery. You can choose to have surgery at whatever point you feel improvements in quality of life — such as your ability to read or drive — are worth the effort and very slight risk of a less than ideal outcome.

### Scattered light

The eye's lens is located just behind the iris, which gives your eye its color. Light that enters the eye passes through the lens, which helps focus the light and produces the images that you perceive as sight on the retina at the back of your eyeball. ▶



A normal lens is crystal clear. As a cataract develops, precisely arranged protein fibers in your lens lose their transparency. A cataract scatters light and prevents a sharp, focused image from reaching your retina.

The lens is where a cataract develops. A normal lens is crystal clear. As a cataract develops, precisely arranged protein fibers in your lens begin to break down, clump together and lose their transparency. A cataract scatters light and prevents a sharp, focused image from reaching your retina.

Small areas of one or both lenses begin to cloud at first, and you may not be aware of any vision change. However, the clouding gradually spreads and becomes denser. Although your vision declines, the lenses still may look clear, as cataracts are often only detectable with special diagnostic instruments.

There are several types of age-related cataracts with subtle differences. Except in rare instances, they develop painlessly and gradually, leading to vision changes that may include:

- Increasingly blurred or dim vision
- Increasing difficulty with night vision
- Sensitivity to bright light and glare
- Seeing halos around lights
- Double vision in one eye

### The right time

Using a variety of tests, an eye doctor can identify lens clouding and determine how dense it is and how much it affects your vision. At the same time, these tests can identify any other eye diseases that may be contributing to impaired vision, such as diabetic retinopathy, glaucoma or macular degeneration.

Surgery is the only treatment for cataracts. But there's usually no rush. You and your eye surgeon can discuss surgical options and timing. In the early stages of the disease, you may be able to put off surgery and still go about your routine by making adjustments, such as using different eyeglasses, using magnifying lenses to read, using stronger lighting or wearing sunglasses to reduce glare. When impaired vision starts to interfere with daily tasks, surgery becomes a stronger consideration.

A coexisting eye disease can impact the timing of cataract surgery. In some cases, a cataract may need to be removed even if it isn't causing major

vision loss because it's interfering with treatment of another eye disease such as glaucoma or diabetic retinopathy. In other cases, it may be best to treat the other eye disease before proceeding with cataract removal.

Another timing consideration involves use of the drug tamsulosin (Flomax) or other alpha-adrenergic blocking agents. These are used to help improve urine flow in men with enlarged prostate glands — also known as benign prostatic hyperplasia (BPH). Less often they may be used to address bladder issues in women. These drugs affect dilation of the iris and can lead to increased risk of complications with cataract surgery. If drug therapy for BPH is planned, you may want to consider having cataract surgery before initiating alpha-adrenergic blocking therapy. If you're already taking one of these drugs, inform your surgeon so that adjustments to the procedure can be made to minimize risk. Stopping alpha-adrenergic blockers before cataract surgery appears to be of no benefit in terms of its effect on the iris or outcomes of cataract surgery.

### Surgical precision

Cataract surgery involves removing the clouded portion of the lens and implanting an artificial (intraocular) lens in its place. Before surgery, ultrasound imaging is used to measure the length of the eye and determine the power of the lens. These measurements are used to determine the appropriate power of the lens implant.

Laser (refractive) surgery to correct your vision makes the calculation of the appropriate artificial lens power more challenging, with less predictable results. However, this problem can be minimized if you have a record of your eye measurements that were made before you had refractive surgery.

Surgery is usually an outpatient procedure lasting less than an hour. You're likely to spend a couple of hours in recovery. It's usually done on one eye at a time. Most people remain awake during the surgery, although sedation is

typically used. Anesthetic eyedrops or injections are used to numb the eye during surgery. Surgical options include:

■ **Phacoemulsification** (*fak-o-e-mul-sih-fih-KAY-shun*) — This is the most common cataract surgery. A 1/8-inch incision is made in the cornea, the rounded, outer surface of your eye. A thin ultrasound probe is inserted into your lens. The probe vibrates rapidly, breaking up the clouded lens. Lens pieces are then removed by suction. What's left is the clear, outer layer (capsule) of the lens, which helps support the intraocular lens. The intraocular lens is usually folded, inserted into the eye, then unfolded and secured in place. Most often, no stitches will be needed to close the incision.

An emerging, potential advance in this procedure is femtosecond laser-assisted cataract surgery. This involves using a laser to make the incision in the

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cornea and break up the clouded lens. It doesn't replace the other steps of phacoemulsification, but it appears to improve incision accuracy and may soften the impact of using ultrasound to break up the lens. It's not clear if this is a significant improvement over the high success rates of ordinary phacoemulsification, and it isn't in widespread use.

■ *Extracapsular cataract extraction* — If your cataract has advanced beyond the point where phacoemulsification can effectively break up the clouded lens, a larger 3/8- to 1/2-inch incision may be made in your cornea to remove the clouded lens in another way. A

## Choosing a lens

The standard artificial (intraocular) lens used in cataract surgery corrects primarily distance vision. Glasses or contacts may still be needed for close-up vision. Newer "premium" lenses may reduce the need for glasses, although they're more expensive and usually aren't covered by insurance.

Options include:

■ *Toric intraocular lenses* — These correct for irregularities in the shape of your cornea (astigmatism) that can blur vision.

■ *Lenses to help correct for both distance and near vision* — The multifocal intraocular lens has alternating zones of distance and near vision on the same lens. The downside is that it's not uncommon to notice glare and halos around lights. The accommodating intraocular lens is designed to bend similarly to a person's natural lens, but it typically doesn't correct reading vision as well as does the multifocal intraocular lens. Generally, the versatility of these lenses comes with a trade-off in the quality of distance vision that can be achieved with standard intraocular lenses.

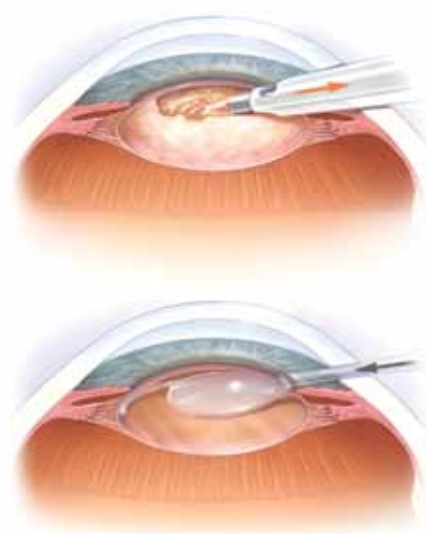
larger incision may also be made if a rigid, nonfoldable intraocular lens is necessary. A larger incision requires stitches and often involves a longer period of healing.

Complications, such as infection, bleeding, inflammation and swelling, are relatively rare and can often be successfully treated if they do occur.

Within the first few days after surgery, any mild pain or discomfort should diminish while your vision steadily improves. Any changes for the worse — such as increased pain or vision changes — require immediate evaluation by your eye doctor.

For about 25 percent of those who have cataract surgery, the lens capsule that holds the lens implant in place becomes cloudy (posterior capsule opacification) in the months or years after the surgery. This can be easily treated with a laser to make it clear again.

In an otherwise healthy eye, cataract removal results in improved vision 95 percent of the time. People with cataracts and another eye disease generally have lower rates of successful vision restoration after cataract surgery. Still, a high percentage of those with other eye diseases have significant vision improvement after cataract surgery. □



**In phacoemulsification, a thin ultrasound probe breaks up the clouded lens and the lens pieces are removed by suction. An artificial lens is inserted and secured.**

# Health tips

## Preventing cataracts

There are many risk factors that you can't control when it comes to the risk of cataract development. Age is the single greatest risk factor. Your genetics also influence your risk, and risk rises with previous eye injury, eye disease or eye surgery. Prolonged use of corticosteroids — which may be a medical necessity — is a risk factor as well.

However, additional risk factors that may promote or speed cataract development include smoking, excessive exposure to sunlight and diabetes. You may be able to blunt the effect of these risk factors by:

■ *Not smoking* — This includes avoiding secondhand smoke.

■ *Protecting your eyes from the sun* — Wear a wide-brimmed hat on sunny days. Choose eyeglasses and sunglasses that block 99 to 100 percent of ultraviolet A (UVA) and ultraviolet B (UVB) light.

■ *Eating healthy* — Consume a plant-based diet that includes a wide variety of fruits, vegetables, leafy greens, beans, legumes, whole grains and nuts. Plant foods are naturally loaded with a wide variety of antioxidant vitamins. Some research has also suggested that omega-3 fatty acids — found in abundance in cold-water fish — may have a preventive effect. One large study showed a moderate reduction in cataract formation but no significant change in macular degeneration with multivitamin use.

■ *Managing health problems* — Follow a treatment plan for managing your medical conditions such as diabetes. □

## News and our views

### Delaying retirement may reduce Alzheimer's risk

Was your early retirement plan delayed by the recent economic slump? If you look on the bright side, those extra years at work may help you avoid or delay Alzheimer's disease or other forms of dementia. Recent research — presented at the 2013 Alzheimer's Association International Conference — suggests a link between lower dementia risk and later retirement age.

Researchers looked at the records of more than 400,000 retired workers in France whose average age was 74. The average number of years spent in retirement was 12, and the prevalence of dementia was 2.65 percent.

The data showed that for each extra year of work, dementia risk declined about 3 percent. For example, those retiring at 60 had about a 15 percent greater chance of having dementia compared with those retiring at age 65. The results held even after people who developed dementia within five years after retirement were excluded, which reduced the chance of counting people who may have stopped working early due to dementia symptoms.

Mayo Clinic experts say that these results fit with the broader, though unproven, theory of building up a “cognitive reserve” of brain capacity as a means of delaying dementia. The theory is that the cognitive reserve can be accessed when other areas of the brain become damaged. For many, delaying retirement may add a few more years of heightened mental stimulation from the career itself, or from the social interaction.

Still, there's far too little evidence to recommend delaying retirement to reduce dementia risk. Moreover, mental stimulation and social connections can be cultivated regardless of your retirement status with a “use it or lose it” mentality. Reading and writing, traveling, being in a club or religious group, taking classes, acting, or playing a musical instrument are just some of the many ways to keep the brain active outside of the work setting. □

### Stem cells grown in space may aid stroke treatment

A Mayo Clinic researcher has received a grant to grow human stem cells in the International Space Station. If successful, these cells could help people recover from stroke and may even lead to the generation of tissues and organs.

Stem cells are the master cells that produce all organ and tissue cell types. Acting as a sort of repair system, they can theoretically divide without limit to replenish other cells. The human adult stem cells being studied are found in bone marrow. Specifically, the experts behind this endeavor are planning to expand the number of stem cells that will induce regeneration of neurons and formation of new blood vessels in people who have had a stroke.

On Earth, stem cells grow slowly. Experiments have shown that by minimizing gravity, the cells grow faster. Thus, scientists theorize that by establishing production in space, enough stem cells can be quickly generated to help a significant number of people. In addition, production in space may reduce the potential for contamination. This is the first experiment that Mayo Clinic has conducted in space. Plans are to transport the stem cells and necessary equipment to the space station within a year.

Mayo Clinic experts are optimistic about the effect this research will have on the field of regenerative medicine — bringing hope for people with not just stroke but a variety of diseases and conditions. □

## Whole-food smoothies

### A potent blend of good nutrition

Spring is upon us. And with warmer weather comes fresh fruits and vegetables in abundance. Want a great way to enjoy the season while giving your health a boost? Try some whole-food smoothies. Smoothies can be a great breakfast or snack — quick, portable and delicious. And they can be nutritious as well.

The main way that smoothies tend to go wrong is by adding a lot of unneeded fat and sugar, which increases calories. But with the right types of ingredients, that doesn't have to be the case. This is especially true if you keep the focus on whole foods.

### Whole foods 101

Whole foods are foods in their natural state or processed and refined as little as possible. Think of a farmers market or the outside aisles of your local supermarket. That's where you'll find fresh fruits and vegetables.

Unlike processed or convenience foods, whole foods tend to be loaded with vitamins, minerals, fiber, antioxidants and other nutrients. And they're lower in fat, sugar, calories and salt. Whole-food smoothies are much like eating the whole food. Juices don't include all of the substances found in whole foods and are often more concentrated so that you consume more sugar. Juicers can remove beneficial fiber from whole foods.

For the environmentally conscious, whole foods are also a great option because they're often grown locally and don't use as much packaging.

### Ingredients to indulge in

To pack healthiest punch with your smoothies, consider these nutrient-packed ingredients:

■ **Berries** — Colorful berries, including blueberries, blackberries, raspberries and strawberries, appear to have heart-healthy effects. Research suggests they may lower blood pressure and positively influence blood vessel health. Berries are rich in antioxidants — substances associated with a lower risk of cancer, heart disease and Alzheimer’s disease.

■ **Greens** — Like berries, dark leafy greens, such as spinach and kale, are antioxidant-rich. They’re a good source of calcium, fiber and iron, as well.

■ **Low-fat and fat-free yogurt** — Dairy products, such as milk and yogurt, are a major source of calcium, vitamin D and protein. But keep saturated fat and sugar at a minimum by choosing varieties that are low-fat or fat-free and don’t have added sugar. You might also want to try low-fat Greek-style yogurt, which contains extra protein. Many yogurts also contain probiotic cultures — “good” bacteria that can help with digestion and offer protection from harmful bacteria. Another healthy option is kefir — a fermented milk drink that also contains probiotics. Kefir is usually found in health food sections or with yogurt products.

■ **Almond, coconut or soy milk** — These milk substitutes, found in the dairy case, can provide calcium and vitamins A and D without a lot of saturated fat or calories. They’re great options if you are lactose intolerant, don’t eat meat products, or have a dairy allergy. Soy milk also contains a good amount of protein.

■ **Citrus fruit** — Lemons, limes and oranges, to name a few, are brimming with antioxidants and essential nutrients, including vitamin C. Instead of sugary, store-bought juices, try adding some fresh-squeezed citrus.

■ **Tropical fruit** — They’re sweet, exotic and abundantly healthy. Pineapple, mango and papaya are high in vitamin C and are good sources of dietary fiber and potassium. Avocado, although higher in fat, provides ample fiber and potassium.

■ **Bananas** — Rich in potassium, bananas also offer welcome sweetness and flavor. Try adding a frozen banana to your smoothie as a great way to add some texture.

■ **Herbs, spices and extracts** — Don’t be afraid to raid your spice rack for your smoothies. These additions — such as cinnamon, mint, nutmeg, ginger and vanilla — can greatly enhance the flavor of your smoothies without decreasing the nutrition.

Here are three delicious smoothie recipes, crafted by executive chefs at Mayo Clinic. Each one has a unique flavor and provides a range of healthy, whole-food ingredients.

### Pineapple smoothie

- 1 banana, sectioned
- 1 c. pineapple, cut into 1/2-inch pieces
- 1/4 c. pineapple juice (if a sweeter smoothie is desired)
- 1/4 c. chopped kale
- 1 c. skim milk (or other milk of choice, such as almond or soy)
- 1/2 c. fat-free plain Greek-style yogurt
- 1/4 tsp. ground cardamom
- 1/2 c. ice cubes (optional)

Combine banana sections, 3/4 c. of the pineapple pieces, pineapple juice, kale, milk, yogurt and cardamom in a blender with ice cubes. Blend until smooth. Pour over remaining 1/4 c. pineapple pieces in a tall glass. Yields about 2 servings.

**Nutrition analysis per serving: 200 calories, 0.5 g total fat (0.2 g saturated fat, 0 g trans fat, 0 g unsaturated fat), 2.5 mg cholesterol, 783 mg sodium, 37 g total carbohydrate, 12 g protein, 3 g dietary fiber**

**Whole-food smoothies can be a great breakfast or a healthy snack.**

### Fruit smoothie

- 1 c. fresh berries
- 1 banana
- 1 orange, peeled
- Juice of one lime or lemon (about 3 tbs.)
- 1 c. fat-free vanilla Greek-style yogurt

Combine fruit, juice and yogurt in a blender. Blend until smooth. Can also use frozen fruit, or add ice cubes for a different texture. Recommend adding ice cubes to froth it up and increase volume without increasing calories. Yields 4 1/2-cup servings.

**Nutrition analysis per serving: 112 calories, 0.3 g total fat (0.05 g saturated fat, 0 g trans fat, 0.11 g unsaturated fat), 2 mg cholesterol, 18 mg sodium, 22 g total carbohydrate, 5 g protein, 2 g dietary fiber**

### Green smoothie

- 1 banana
- 1/2 c. strawberries
- Juice of 1 lemon (about 3 tbs.)
- 1/2 c. other berry (for example, blackberry, blueberry)
- 2 oz. fresh baby spinach
- 1 tbs. fresh mint (more or less to taste)
- 1 c. cold water or ice cubes

Place all ingredients in a blender and puree to desired consistency. Yields about 4 6-oz. servings.

**Nutrition analysis per serving: 55 calories, 0.2 g total fat (0.05 g saturated fat, 0 g trans fat, 0.1 g unsaturated fat), 0 mg cholesterol, 14 mg sodium, 12 g total carbohydrate, 1 g protein, 2 g dietary fiber** □



# Oxytocin

## The social hormone

It's been dubbed the "love" or "trust" hormone, because one of the key roles that the hormone oxytocin (ok-see-TOE-sin) is thought to play is to influence social function, particularly facilitating bonding, trust and attachment.

This may sound straightforward, but it isn't. Rather, oxytocin is part of an entire system involving not only this hormone but also the brain, hormone receptors and interaction with other hormones as well as your genetics.

Recent research using a nasal spray that delivers oxytocin to the brain is beginning to unravel the complexity of oxytocin's function and its possible use as a therapy for a number of conditions. However, the way this hormone works is far from certain, and any sort of use as therapy is experimental at best.

### Social role

Oxytocin acts as a hormone throughout your body and as a neurotransmitter that influences brain activity and function. Facilitating childbirth is one way oxytocin acts as a hormone in the body. In fact, women with slowly progressing labor are often given the drug form of oxytocin — called Pitocin — to get a slow childbirth on a faster track.

In the brain, oxytocin appears to play a role in facilitating social activity throughout life, such as:

- *Pair bonding and trust* — Oxytocin facilitates bonds between males and females and in mother and offspring — and it's particularly active in species that favor monogamous pairings. In addition, it facilitates empathy and leads to a calming, positive bias when assessing social cues of others.

In experimental economic games, people receiving an oxytocin nasal spray tend to be more willing to give money to an appointed trustee. However, some research suggests the effect is negated when the money goes to-

ward a project, rather than a person, or when the game facilitator is deemed untrustworthy.

- *Interpretation of social cues* — The often-rapid visual gathering of information that occurs in social settings appears to be facilitated — and perhaps enhanced — by oxytocin. This allows people to quickly assess facial expressions, look for recognizable signs, and make friend- or foe-type judgments. Although oxytocin often appears to bias people toward viewing others in a more relaxed, positive light, it may be balanced by another brain-stimulating chemical called vasopressin, which may be more likely to cause suspicion and to trigger social anxiety or aggression.

- *Calming of social anxiety* — Oxytocin also plays a role in the ways you respond to fear or stress — such as with a racing heart or bowel distress — by promoting a calming, anti-anxiety effect. In one study, people given oxytocin before a public speech exhibited lower signs of stress, especially if they had a supportive friend in attendance. There's also a link between low or imbalanced oxytocin levels in conditions such as depression, anxiety, and psychiatric disorders such as autism or schizophrenia.

### Complicated recipe

Oxytocin is part of a suite of brain chemicals that coordinate social function. Others include vasopressin, cortisol and natural opiates. Estrogen and testosterone also influence the effect of oxytocin. In research involving live-action brain imaging, an oxytocin nasal spray led to different brain activity in men than in women.

The amount of oxytocin in your body is only part of its potential to have an effect. Oxytocin also must attach to receptors throughout your body. Receptor density and location appear to vary from person to person. Genetic makeup may influence the scope of oxytocin receptors in your body. Even life experience may alter genetics related to oxytocin receptor density and location.

Context also appears to be important when considering the effect of oxytocin. In one review of research, it was found that while some studies showed oxytocin to have a pro-social effect, other studies showed no effect in that regard. In addition, about 21 percent of studies showed oxytocin to have an antisocial effect, such as increasing feelings of envy, mistrust or insecurity.

It's not known why oxytocin may have pro- and antisocial effects. It's possible that oxytocin's ability to increase attention to social cues may be beneficial in more-familiar situations, with people perceived as more trustworthy. On the other hand, it may have a less social effect in a setting of competition, unfamiliarity or uncertainty.

### Treatment role uncertain

It's too early — and there are far too many unknowns — for oxytocin to be used as treatment in anything other than an experimental setting.

Still, early research has shown some promise in using it to treat symptoms of several conditions, including post-traumatic stress disorder, a certain form of dementia that leads to lost social skills, and a borderline personality in which people are extra sensitive to perceived social threats. Theoretical uses for oxytocin treatment include depression, anxiety disorders, psychiatric disorders, irritable bowel syndrome and in couples counseling.

Short of using oxytocin as a treatment, positive social interaction appears to stimulate the oxytocin system. Hugs and support of loved ones may be a way to leverage the stress and anti-anxiety role of oxytocin. Even pets may have an effect. One study found that urinary oxytocin levels were higher in people who made more eye contact with beloved pet dogs than it was in people who made less eye contact with pet dogs that they didn't feel attached to.

Perhaps this effect accounts in part for why healthy social relationships are important contributors to overall health and well-being. □

# CHADS2 score

## Assessing stroke risk

You were recently diagnosed with atrial fibrillation — an irregular heartbeat that increases your risk of stroke. After reviewing your risk factors, and based on your CHADS2 score, your doctor recommended that you begin taking an anticoagulant medication to thin your blood and reduce your stroke risk.

CHADS2 is a scoring system that doctors use to decide whether it's appropriate to recommend a person with atrial fibrillation take warfarin (Coumadin, others) or other blood-thinning medications to reduce the risk of stroke.

### Why warfarin?

Warfarin and some of the newer anticoagulants are used to treat and prevent blood clots from forming in the heart. You may be given warfarin or another newer anticoagulant if you have a known blood clot or are at risk of one forming, such as may occur with atrial fibrillation.

Anticoagulants can reduce your risk of stroke by more than 60 percent. However, there are several reasons that

CHADS2 risk factors		Score
<b>C</b>	Congestive heart failure	1
<b>H</b>	High blood pressure (hypertension)	1
<b>A</b>	Age 75 or older	1
<b>D</b>	Diabetes	1
<b>S2</b>	Stroke or transient ischemic attack (TIA) in the past	2
Maximum score		6
Score	Risk	Recommended therapy
<b>0</b>	Low	None or aspirin
<b>1</b>	Moderate	Anticoagulant or aspirin
<b>2 or greater</b>	Moderate to high	Anticoagulant

warfarin may not be prescribed, including concerns about increased risk of bleeding, interactions with diet and other drugs, and the necessity for frequent blood tests and monitoring. Other newer anticoagulants may be used — especially if interactions with drugs, foods or the need for close monitoring present problems — although they carry a similar bleeding risk and often higher cost.

As with any drug, your doctor weighs the risks against the benefits when recommending an anticoagulant. This is where the CHADS2 score comes in.

### How CHADS2 works

The CHADS2 score is used to evaluate your risk of stroke if you don't use anticoagulant therapy. With CHADS2, potential risk factors are given a point value. The above chart shows how scores are determined and the typical risk-reduction therapy. The higher your score, the higher your yearly stroke risk and, therefore, the more you would benefit from taking warfarin.

### Refining the score

Despite the benefits of using the CHADS2 score, some experts have proposed that it isn't enough. Some experts use a modified CHADS2 score, known as the CHA2DS2-VASc score.

By reanalyzing the data with additional risk factors, more than half of the people previously considered at low risk moved to a score at which anticoagulant therapy is recommended.

The chart at left lists CHA2DS2-VASc risk factors and recommended therapies.

### A final note

Stroke is a leading cause of death — killing nearly 130,000 people in the U.S. each year. That's why it's important to follow the plan your doctor recommends to reduce your risk. Your doctor can recommend important lifestyle changes to make and risk factors to address — in addition to the possibility of using anticoagulant therapy. □

CHA2DS2-VASc risk factors		Score
<b>C</b>	Congestive heart failure or left ventricle dysfunction	1
<b>H</b>	High blood pressure (hypertension)	1
<b>A2</b>	Age 75 or older	1
<b>D</b>	Diabetes	1
<b>S2</b>	Stroke or transient ischemic attack (TIA) in the past	2
<b>V</b>	Vascular disease	1
<b>A</b>	Age 65 to 74	1
<b>Sc</b>	Sex category (female)	1
Maximum score		9
Score	Risk	Recommended therapy
<b>0</b>	Low	None needed
<b>1</b>	Moderate	Anticoagulant or aspirin
<b>2 or greater</b>	High	Anticoagulant

# Second opinion

**Q I keep reading that nuts are good for health, but I also know they are high in fat and calories. If I'm watching my weight, should I be eating nuts?**

**A** Yes, but in moderation. Nuts — with the exception of chestnuts — are high in fat and calories. However, nuts are also packed with heart-healthy nutrients. Small amounts of nuts may help satisfy hunger longer than do other foods, decreasing your overall calorie intake.

A recent study looked at nut consumption — including tree nuts such as almonds, walnuts and cashews, and the legume peanuts — in about 800 people. It found that those whose average nut consumption was 16 grams a day — a little more than a half-serving — were 37 to 46 percent less likely to be obese than were those who ate significantly less. A serving of nuts is about 1 ounce. That's about 23 almonds or equal to a modest handful of most types of nuts — or equal to about 2 tablespoons of nut butter.

A recent meta-analysis reported that in randomized controlled feeding trials, weight didn't significantly increase when nuts were added to the diet. Another analysis found that those who consumed nuts seven or more times a week had a 20 percent lower death rate over 24 to 30 years compared with people who didn't eat nuts.



It's not fully understood why nuts appear to be so good for health, but likely reasons include:

- The majority of the fat in nuts is "good" fat, meaning it's monounsaturated or polyunsaturated fat — or in the case of walnuts, the omega-3 fatty acid alpha-linolenic acid.

- Nuts contain a wide array of healthy nutrients, including protein, the B vitamin folate, cholesterol-lowering plant sterols and L-arginine, which promotes nitric acid production and proper blood vessel function.

- Nuts contain cholesterol-lowering dietary fiber that — along with the fat content and crunchiness — may enhance satisfaction of hunger.

The American Heart Association recommends eating four servings of unsalted, dry-roasted or raw nuts a week. □

**Q I recently received a cortisone injection in my knee, and it substantially reduced the pain and stiffness. How often can I safely have these injections? Will there be side effects?**

**A** It depends. The type of joint problem you have and its severity will help your doctor determine the right timing and frequency for you.

Corticosteroid medications — including methylprednisolone acetate (Depo-Medrol), triamcinolone acetonide (Kenalog), triamcinolone hexacetonide (Aristospan) and betamethasone acetate (Celestone) — are often injected to help relieve pain and inflammation in a specific area. They're most commonly injected into joints such as the ankle, elbow, hip, knee, shoulder, spine and wrist. They may be part of treatment

for a number of conditions, including rheumatoid arthritis, osteoarthritis, back pain, bursitis, carpal tunnel syndrome and tendinitis. Many people find that the injections provide significant relief.

Injected corticosteroids can cause side effects near the injection site, including pain, shrinking of soft tissue and loss of skin color. Side effects often seen with oral corticosteroids — increased appetite and elevated blood sugars — are usually less common with injected corticosteroids.

However, repeated use of cortisone shots may cause deterioration of cartilage within a joint or the collagen tissue that makes up part of tendons. For this reason, the number of corticosteroid shots into a joint or around a tendon is typically limited. In general, the injections shouldn't be given in the same area more often than every three months and usually not more than three or four times a year. □

## 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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