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How to Save on Your Prescriptions

If you think you are paying too much for medications, it's worth investigating. Here are ways you might be able to get the medications you need at a lower cost.

The approvals of tafamidis (Vyndamax) and tafamidis meglumine (Vyndaqel) in 2019 were a victory for patients with transthyretin-mediated amyloidosis cardiomyopathy (ATTR-CM). These new agents slow the development of heart failure and reduce the 30-month mortality rate from 43% to 30%. But at \$225,000 a year, the drugs may be unaffordable for many. Medicare Part D covers some of the cost, but the out-of-pocket payment is \$1,000-\$1,500 a month. Patients under age 65 with private insurance may pay more.

Fortunately, such pricey drugs are an exception: Most common heart drugs, including blood-pressure medications, cost only pennies a day. But if you take multiple drugs for several medical conditions, out-of-pocket costs can add up. Doctors generally do not know how much a drug will cost when they prescribe it, because the cost depends on many variables, including the patient's drug plan and the pharmacy they use. That means it's up to patients to shop around.

1 Try These Steps First

If you feel you are paying too much for your medications—or you want to make sure you aren't overpaying—here are the first steps you might take:

♦ **Check your insurance formulary.** Every insurance company lists the drugs they cover and do not cover. Call your insurance company to see whether the drugs you take are covered or if there are less-expensive alternatives.

♦ **Ask the pharmacist how much you would pay without insurance.** Sometimes it's



Many seniors take multiple medications for a variety of medical conditions. Even with good insurance, out-of-pocket payments can add up to a sizeable proportion of disposable income.

cheaper to skip insurance altogether and pay cash.

♦ **Ask for a 90-day supply.** You'll pay a single copay instead of three copays for three 30-day supplies.

♦ **Buy generics.** After a patent runs out, other drugs with similar chemical formulations (and different names) are made available at a lower price. Ask your doctor if there's a generic version of your medication you can take.

♦ **Split a stronger pill.** If your insurance company charges per pill, you'll pay for fewer pills if your doctor prescribes the medication in double strength and allows you to cut the pills in half. (Note: Capsules, time-release pills and coated tablets do not work well when split.)

♦ **Take the drug more often.** Generally, pills that must be taken two or three times a day are less expensive than those made to be taken only once a day.

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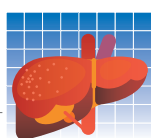
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HEART BEAT



Liver Disease Connected to Arrhythmias

Nonalcoholic fatty liver disease (NAFLD) is a known independent risk factor for atrial fibrillation (A-fib). In NAFLD, fat accumulates in the liver for unknown reasons. Now, a retrospective study has found that NAFLD increases the risk that A-fib will recur after ablation.

Researchers reviewed 267 consecutive obese patients who had undergone ablation for A-fib. The amount of fat surrounding the heart (epicardial fat) as measured by CT was significantly higher in the patients with NAFLD. During a mean followup of 29 months, A-fib recurred in 56% of the 89 patients with NAFLD, compared with 21% of the 178 patients without NAFLD. In the study, published online August 12 in *JACC: Clinical Electrophysiology*, the authors hypothesized that the increase in arrhythmia recurrence was likely due to the amount of epicardial fat.



Frequent, Severe Nightmares May Signify Cardiovascular Disease

Preliminary results of a study involving nearly 3,500 veterans found a higher rate of heart disease, high blood pressure and heart attack among those suffering from distressing nightmares two or three times a week. The association remained significant after adjusting for post-traumatic stress disorder, depression and smoking status. Among the 33% who reported suffering frequent nightmares in the past week, 29.2% had hypertension, 6.6% had diabetes and 6% had heart problems. As reported in late August at SLEEP 2020, the annual meeting of Associated Professional Sleep Societies, the participants' average age was 38; 78% were men and half were African American. All had served one or two tours of duty in the military since Sept. 11, 2011.



COVID-19 Studies Reinforce Diabetes, Obesity as Major Risk Factors

Ongoing examination of data on COVID-19 patients worldwide confirms a high prevalence of diabetes among patients hospitalized with the viral infection. An analysis of 65 reports published between Dec. 1, 2019, and April 6, 2020, involving 16,000 patients found that the rate of hospitalized COVID-19 patients with diabetes requiring admission to the intensive care unit (ICU) was 96% higher than for COVID-19 patients without diabetes, and their risk of death was nearly three times higher. This paper was published online July 21 in the *Journal of the Endocrine Society*.

An article published online Aug. 13 in *The Lancet Diabetes and Endocrinology* found both type 1 and type 2 diabetes significantly increased the risk for in-hospital death from COVID-19. More than one-third of 23,698 hospital deaths from COVID-19 in England between March and May 2020 occurred in people with diabetes. The mortality rate per 100,000 was 138 for type 1 diabetes and 260 for type 2 diabetes, compared with 27 for British residents without diabetes. After adjusting for factors including age, sex and ethnicity, the likelihood of dying in hospital was 3.5 times higher for COVID-19 patients with type 1 diabetes and 2.0 times higher for those with type 2 diabetes, compared with COVID-19 patients without diabetes. Nevertheless, the risk of death for COVID-19 patients under age 40 with either form of diabetes was extremely low.

In a study of California residents in a single healthcare plan published Aug. 12 in the *Annals of Internal Medicine*, the risk of death within 21 days after being diagnosed with COVID-19 was significantly greater in men ages 60 and younger with severe obesity. In this study, researchers examined more than 6,900 patients diagnosed with COVID-19 between Feb. 13 and May 2, 2020. During this time period, 206 patients died of COVID-19 within three weeks of diagnosis. When the cohort was divided into six categories by weight, COVID-19 patients with moderately severe obesity (BMI 40-44) had a 2.7-fold increased risk of death, and those with extremely severe obesity (BMI greater than 45) had a 4.2-fold increased risk of death, compared with patients of normal weight (BMI 14.5-23). This risk associated with severe obesity was most striking in patients ages 60 and younger and in men, but not in women. ■

SAVE ON PRESCRIPTIONS from page 1

♦ **Stick with an older drug.** New medications are not always more effective than older ones and generally cost more.

♦ **Consider an alternative drug.** Some conditions can be managed with a variety of medications. Ask if there's a less-expensive drug that might be just as effective.

♦ **Forget polypills.** The combination of two or more medications in a single pill makes taking medications easier. However, these “polypills” can be much more expensive than taking the individual medications separately.

♦ **Look for a loyalty plan.** Many pharmacies have their own drug plans or senior discounts designed to encourage loyalty. These plans may save you as much as 60%.

♦ **Ask about special promotions.** Pharmacists know when drug companies are running promos and might be able to offer you coupons for certain drugs or manufacturers.

♦ **Seek discounts.** Multiple online services offer coupons that are accepted at many pharmacies. A few of these services are:

- GoodRx (goodrx.com)
- Blink Health (blinkhealth.com)
- Script-Save WellRx (wellrx.com)
- SingleCare (singlecare.com)



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Don't be afraid to contact the manufacturer of a particular medication. Many are willing to help patients who need their drugs obtain them at an affordable price.

♦ Buy from online pharmacies.

Thanks to low overhead, online pharmacies are able to offer better prices. However, not all online pharmacies are reputable. To make sure the medication you receive is “the real thing,” check the National Association of Boards of Pharmacy website (<https://safe.pharmacy>) for a list of approved pharmacies. These pharmacies carry the Verified Internet Pharmacy Practice Site (VIPPS) seal or a “pharmacy” Internet address. Visit pharmacychecker.com to read reviews and rates from other users. If you use a Canadian pharmacy, make sure it is registered with the Canadian International Pharmacy Association (www.cipa.com).

2 If You Haven't Found Price Relief, Move Up the Ranks

If you've tried these steps and still find your medication is unaffordable, here are additional actions you can take:

♦ **Contact the manufacturer.** Most drug companies have programs that provide their medications free or at a reduced cost for patients who qualify.

♦ **Appeal for coverage.** If the medication is not included in your plan's formulary and you're faced with paying full price, file an appeal with your insurer. If your appeal is rejected, contact your state insurance regulator and request an independent medical review. The process is free. If the denial letter does not provide the name of your state regulator, you can find it on https://content.naic.org/state_web_map.htm. Your doctor will have to help you by proving the specific medication is necessary and no alternative is available or acceptable.

3 Make Sure Your Medicare Plan Works in Your Favor

Finally, make sure you will pay the lowest cost through your Medicare Part D plan.

♦ **Compare plans.** The cost of a particular drug may vary widely between plans. Before you sign up



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Pharmacists are underutilized resources. Don't hesitate to ask them about less-expensive substitutes, or pharmacy loyalty plans.

for Medicare, visit Medicare.gov and click on “Find Health & Drug Plans” to see which plans cover your medications without exceeding a set amount that may change yearly (it's \$4,020 in 2020). After this, you enter the coverage gap (“donut hole”), and coverage becomes more complicated.

♦ **Reevaluate your plan every year.** The cost of drugs often varies from year to year. Every fall, revisit Medicare.gov, enter the information on your medications and it will show you the expected charges for Medicare Part D and Medicare Advantage prescription drug plans.

♦ **Look for a Medicare Part D plan without a donut hole.** These plans have higher premiums, but if your medication costs are high, this type of plan may be a cost-effective option for you.

4 Take Advantage of This Tax Break, if Possible

♦ **Open a health savings account (HSA).** If you have a high-deductible plan, an HSA will allow you to spend up to \$6,900 on out-of-pocket medical expenses every year tax-free. You can open an HSA at your local bank.

The government is currently reviewing several proposals that would lower drug costs for Americans. However, pushback from pharmaceutical companies is so strong that these proposals are unlikely to pass anytime soon. 🏠

Short of Breath? Get Checked for Diastolic Heart Failure

Early intervention in this lesser-known type of heart failure increases the chance of survival.

Marge was unable to lean over and tie her shoelaces without becoming short of breath. Dorothy noticed she could no longer go up stairs without having trouble breathing. Virginia was distressed watching her feet and ankles become puffy and swollen.

Shortness of breath and swollen limbs from water retention are key signs of diastolic heart failure. But it's not uncommon for results of typical heart-failure tests in patients with these symptoms to come back normal. This can leave physicians scratching their heads and patients without answers.

"This diagnosis is missed a lot in clinical practice," says Cleveland Clinic cardiologist Maria Mountis, DO. "If you are experiencing shortness of breath and holding on to water, and a cardiologist can find no explanation for it, I suggest you see a heart-failure specialist."

A Stiff Heart

Heart failure is not a disease, but a collection of problems and symptoms that occur when the heart muscle is no longer able to pump enough blood to meet the body's needs.

A healthy heart ejects 50 to 65 percent of its blood with each beat (ejection fraction). Patients with advanced heart failure can have an ejection fraction of 10 to 40 percent.

The underlying causes for this poor performance vary. In diastolic heart failure, the heart muscle becomes stiff and cannot expand well enough to refill with blood between beats. In systolic heart failure, the heart muscle cannot contract effectively. Either way, the heart loses its pumping power.

Managing Heart Failure

In contrast to systolic heart failure, which often follows a heart attack, diastolic heart failure typically results from longstanding high blood pressure or sleep apnea. It can also occur from infiltration of the heart muscle with protein (amyloidosis) or a disease called hypertrophic cardiomyopathy.

There are no specific medications to treat diastolic heart failure, although diuretics can be used to eliminate excess water to improve breathing and reduce swelling. As of 2019, amyloidosis is also treatable with medications. For most patients with diastolic heart failure, though, treatment is directed at managing the underlying cause, such as high blood pressure.

"You must be very diligent about it," says Dr. Mountis. "This means if high blood pressure is the cause, you must keep your blood pressure at about 120/80 millimeters of mercury at all times."

It may also be beneficial to go beyond the minimum requirements to provide a healthy environment for your heart. This may require eating



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Shortness of breath can be a symptom of many problems. If you are a woman, ask your doctor whether you might have diastolic heart failure.

a low-salt diet, getting regular exercise, losing extra pounds or quitting smoking. "Heart failure is not curable, but it is very controllable if you keep the underlying risk factors at bay," she says.

Bright Spots

Heart failure is a frustrating problem for patients and physicians alike, since treatment advances have been slow to come. Most medications and devices developed in recent years have benefited only patients with systolic heart failure. Still, there is a bit of good news for patients with advanced diastolic heart failure.

An implantable warning device called CardioMEMS has proven its ability to help these patients feel better and avoid crises leading to hospitalization. The device works by sensing rising fluid levels in the heart and lungs. This allows the patient's physician to adjust medications before symptoms worsen. ■



Help Is On the Way

Diastolic heart failure causes blood to back up in the lungs and circulation, producing shortness of breath and swelling. While medications to reduce these high blood pressures have not panned out, an inter-arterial shunt device (IASD) appears to do what medications cannot. The IASD creates an opening between the right and left upper chambers of the heart (atria) to encourage blood to flow from the high-pressure left atrium into the low-pressure right atrium. This lowers the blood pressure in the left atrium and lungs.

In the first IASD study, patients who received the device were comfortably able to do more physical activity before running out of breath, walk farther without fatigue and enjoy a better quality of life. A second study of the device is now underway.

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Lower Your Blood Pressure with the Low-Sodium DASH Diet

This healthy eating plan can lower blood pressure as much as one or two hypertension medications.

There's no shortage of salt in the American diet. We consume an average of two to three teaspoons of sodium (the primary component in table salt) a day—more, when we indulge in fast foods or processed foods. Sodium causes water retention, which raises blood pressure. The relentless force of chronically high blood pressure exerted on artery walls is a major cause of stroke and heart attack.

If your blood pressure is higher than normal (see sidebar), following the Dietary Approaches to Stop Hypertension (DASH) diet may

be one of the most beneficial things you can do—even if you take blood pressure-lowering drugs.

“Blood pressure management is 70% lifestyle measures and 30% medications,” says Cleveland Clinic preventive cardiologist Luke J. Laffin, MD.

“No matter how many medications you take, they won't lower your blood pressure enough unless you make lifestyle changes. The most important of these is eating a low-sodium diet, such as the DASH diet.”

What Makes DASH Special?

The DASH diet is not really a diet—that implies a temporary change in eating habits to achieve a short-term goal. Rather, it's an eating plan you can stay with for life.

“The DASH diet is similar to the Mediterranean diet, but is low in sodium,” says Dr. Laffin. “It's

not designed for weight loss, but most people who follow it find they lose weight.”

You can find details about the DASH diet and recipes on www.nhlbi.nih.gov/health-topics/dash-eating-plan or at your favorite bookstore.

The DASH diet was not originally conceived as a low-sodium diet. Rather, it was simply a heart-healthy diet developed in hopes of lowering diastolic blood pressure.

When researchers compared it to the average American diet and a diet high in fruits, vegetables and

fiber, the DASH diet had a far greater effect on blood pressure, causing an average drop of 5.5/3.0 millimeters of mercury (mmHg) across the board and a 11/5 mmHg drop in patients with hypertension.

In a subsequent study, the researchers randomized participants to the DASH diet or an average American diet. Both diets were further divided into low, medium and high sodium levels. Regardless of diet, blood pressure declined in tandem with sodium levels. The greatest effect was seen in patients with the highest blood pressures who consumed the DASH diet with the lowest sodium levels. Thus, the DASH diet as we know it today was born.

DASH vs. Other Diets

Other diets can lower blood pressure, but not as far as the DASH diet.



The DASH diet emphasizes vegetables, fruits, fish, and legumes, and limits animal fats and sodium.

When Blood Pressure Meds May Be Needed



With each heartbeat, blood pressure experiences a maximum level (systolic, which is the first/higher number in a blood pressure reading) and a minimum level (diastolic, or second/lower number) measured in millimeters of mercury (mmHg).

If your blood pressure is 120/80 mmHg or higher, a low-sodium diet may be sufficient to normalize it. Once blood pressure reaches 140/90 mmHg, medication is generally required, as well.

The Mediterranean diet has been shown to drop blood pressure 3/2 mmHg. With various plant-based diets, patients with hypertension can expect to see their blood pressure decline about 7/5 mmHg.

The DASH diet works across the spectrum of patients with hypertension, but the higher the blood pressure, the more effective it is. In patients with resistant hypertension, a significant drop in sodium intake can cause blood pressure to drop by 20/10 mmHg in 24 hours.

“The low-sodium DASH diet is the most effective blood pressure-lowering tool we have. Its effect is actually comparable to that of 1½ to two antihypertensive medications,” says Dr. Laffin.

What “Low Sodium” Means

The average American consumes 3 milligrams (mg) of sodium a day. So what is considered “low-sodium?”

“The American Heart Association suggests 1,500 mg of sodium a day, but I think that is difficult to achieve,” says Dr. Laffin. “Most people do well on a maximum of 2,300 mg a day, and the difference between 2,300 and 1,500 mg of sodium on blood pressure is minimal.”

What QT Prolongation Means

Some medications increase the risk your heart's electrical system will short-circuit, causing sudden cardiac death.

Hydroxychloroquine (HCQ) is an old drug used to treat malaria and lupus. When HCQ was proposed as a potential treatment for COVID-19, many cardiologists were quick to express concern over using a drug that prolongs the QT interval. Not knowing what this means, and eager for a cure, many people were willing to overlook this fact. However, it's not a risk that should be taken lightly.

"The QT interval is a measurement of how long it takes for the heart to squeeze, relax, recharge its electrical system and repeat," Cleveland Clinic electrophysiologist Peter Aziz, MD, explains. "The longer this takes, the greater the risk that a dangerous arrhythmia will occur."

The worrisome arrhythmia is a form of ventricular tachycardia called torsades de pointes. Both lower chambers (ventricles) of the heart beat so fast that the heart quivers instead of contracting. "It can occur without warning, and is usually fatal," says Dr. Aziz.

Safe or Unsafe?

Since HCQ is safe for malaria and lupus patients, why would it be unsafe for COVID-19 patients?

"In generally healthy patients, HCQ rarely causes problems. However, COVID-19 patients who are hospitalized or on a ventilator require drugs for sedation, pain,

arrhythmias, anxiety and other reasons, and many drugs commonly used for these purposes are also QT prolongers," Dr. Aziz explains.

"When you give multiple QT-prolonging drugs to critically ill patients, it multiplies the risk that a fatal arrhythmia will occur."

QT Interval

No HCQ, No Problem

If HCQ had proven effective against COVID-19, people would have been forced to choose between a potentially dangerous drug and a dangerous disease. But HCQ was not the panacea everyone had hoped for.

In early April Cleveland Clinic joined forces with other hospitals in a blinded, randomized, placebo-controlled study of HCQ in hospitalized COVID-19 patients. The trial was stopped after six weeks when HCQ showed neither benefit nor harm. **H**

Fleeting Symptoms May Be Those of Stroke. Don't Ignore Them.

Just because they pass quickly doesn't mean they are harmless. A brain scan may reveal you've had a stroke.

For years, we thought that stroke symptoms lasting only a short time—say, 10 to 30 minutes—were merely a warning sign that a full-blown stroke might soon follow. While this is true, magnetic resonance imaging (MRI) has revealed this is only part of the story.

"Patients who come to the emergency department with symptoms of stroke and are admitted to the hospital for evaluation get an MRI of the brain, even if their symptoms have resolved," says Efrain Salgado, MD, head of the Stroke Center at Cleveland Clinic Florida. "Sometimes, the MRI shows damage to the

brain consistent with the symptoms. When this is the case, the patient is diagnosed with stroke—even if the symptoms lasted only a short time before clearing up completely."

TIA Is an Emergency

An episode of stroke symptoms that resolves in a few minutes is known as a transient ischemic attack (TIA). It means blood flow to an area of brain tissue has been interrupted. When blood flow stops

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Heed These Symptoms

A TIA can cause any symptom of stroke—which is why it's impossible to tell the difference between the two events. The most common symptoms of both are:

- Sudden drooping face.
- Sudden numbness or weakness in the face, arm or leg, particularly on one side of the body.
- Confusion, trouble speaking or understanding speech.
- Loss of vision in one or both eyes.
- Trouble walking, dizziness, loss of balance or coordination.
- Sudden severe headache.

Sudden onset is key. Stroke symptoms begin acutely.

— Dr. Salgado

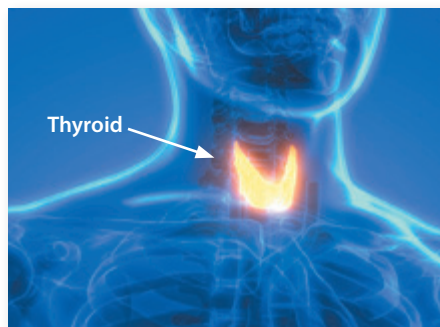
How Thyroid Hormone Levels Affect Your Heart Function

Treat levels that are too high or too low to avoid serious heart problems.

Did you know there's a butterfly-shaped gland in your neck that controls your heart? It's your thyroid, and it produces hormones that control how your body functions. In this role, it governs how strongly your heart beats.

When your thyroid works normally, you will feel normal. But in 12% of adults—mostly women—it stops working like it should. When this happens, you'll soon know that something is wrong.

"The heart depends on thyroid hormone, so when there's too little hormone, the heart slows down. If there's too much hormone, the heart speeds up," says Cleveland Clinic endocrinologist Christian Nasr, MD.



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How the Thyroid Works

Most people in the United States get all the iodine the thyroid requires by eating a normal diet. Good sources of iodine include table salt, fish, eggs and dairy products.

The thyroid absorbs the iodine and uses it to make two hormones: thyroxine (T4) and triiodothyronine (T3). The body is unable to use T4, so it converts T4 to T3 by removing one iodine atom. T3 receptors on heart muscle cells grab this hormone and use it to help the heart pump forcefully and refill quickly.

More Is Not Better

Too much thyroid hormone (hyperthyroidism) accelerates the heart rate. "It's like the heart is running a marathon every day," says Dr. Nasr.

People with hyperthyroidism may develop a rapid heart rate, palpitations and insomnia. They may feel uncomfortably hot, become irritable or anxious, and may have an insatiable appetite, yet lose weight. As thyroid hormone levels rise, symptoms worsen, and a rapid heart rate may turn into atrial fibrillation.

If they have coronary artery disease, hyperthyroidism may lead to heart attack or stroke. "This happens mainly in people over age 65 with some heart dysfunction, even if it's so mild that symptoms have not yet appeared," says Dr. Nasr.

The most common cause of hyperthyroidism is Graves' disease, an autoimmune disease in which the body attacks the thyroid.

Sapping the Heart

Declining thyroid hormone levels (hypothyroidism) occur when the thyroid stops making enough hormone. This causes the heart to slow down. As the weakened heart struggles to pump, the person will feel tired, and may retain water, giving them a puffy appearance. With a slow metabolism, weight gain is inevitable.

As hypothyroidism worsens, blood pressure drops, and the heart muscle may develop fibrosis, a type of scarring that stiffens the heart and can cause heart failure.

Treating Thyroid Disease

If you develop any symptom of thyroid disease, see your doctor. A simple blood test will confirm or rule out the diagnosis.

Treatment will not only make you feel better, but also will help restore normal heart function or prevent your heart problem from getting worse.

"Without intervention, someone with thyroid disease—even a mild form—can expect worse cardiovascular outcomes," says Dr. Nasr.

Treatment for hypothyroidism is simple: The missing hormone is replaced with levothyroxine, a synthetic hormone supplement. In only a few days, the person will begin to feel better. As the heart receives more T3, it begins to pump more strongly.

"Some changes in the heart can be reversed, if the patient doesn't have an underlying heart problem," says Dr. Nasr.

Hyperthyroidism is cured by surgically removing or destroying the overactive thyroid gland with radioactive iodine and replacing the hormone with levothyroxine.

"Damage caused by a heart attack cannot be correctable, but treating hyperthyroidism will put a stop to other heart problems, such as arrhythmias," says Dr. Nasr. ■

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for more than a few seconds, neurons begin to malfunction. Unless blood flow is quickly restored, the neurons begin to die. This is the lasting legacy of stroke.

"The longer a TIA lasts, the higher the likelihood the MRI will show an area of dead tissue. The faster the symptoms resolve, the less likely a stroke has occurred," Dr. Salgado explains.

This is why you should call 911, even if your symptoms go away in a few minutes. "It's important to be evaluated in the emergency department. Even if you had a TIA, you can have a stroke at any time. Consider the symptoms a harbinger that something bad may happen soon. Don't ignore the warning," says Dr. Salgado. ■



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IN COMING ISSUES

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What is the purpose of getting a coronary artery calcium score?

The amount of calcium in the coronary arteries has been associated with increased risk of atherosclerotic cardiovascular disease (ASCVD).

Although obtaining a coronary artery calcium score can be quite helpful in certain individuals when making decisions about starting or escalating lipid-lowering therapy, the presence of coronary artery calcium generally should not be used to pursue other cardiac tests (such as a stress test) when symptoms consistent with angina are absent.

Coronary artery calcium scoring is best used to guide physician-patient discussions about the use of lipid-lowering therapies. An example would be statins in patients with an intermediate risk of heart attack within 10 years and no history of stroke, heart attack, peripheral arterial disease, coronary revascularization, smoking, strong family history of ASCVD or diabetes.

If a patient is hesitant to take statins or other cholesterol-lowering medication, but is at intermediate future risk of a stroke or heart attack, we discuss healthy lifestyle interventions that can be undertaken to reduce this risk. We also talk about obtaining a coronary calcium score. A score of zero portends a very low risk of having a stroke or heart attack within the next five years. In these individuals we can often defer statin therapy for another three to five years. After that time period, consideration can be given to repeating the test. When the score is higher than 0, American College of Cardiology and American Heart Association guidelines clearly favor starting lipid-lowering therapy.

It is important to note that coronary artery calcium scoring should not be conducted serially in patients taking statins and should not be performed unless knowing the score could change treatment recommendations.

It may be useful to know that health insurance typically does not cover the cost of coronary artery calcium scoring.

My “good” HDL cholesterol level is low. Should I worry about this?

Although it is known as “good” cholesterol, not all high-density lipoprotein cholesterol (HDL) is beneficial.

Low HDL levels themselves have never been shown to cause ASCVD. However, there is a robust association between low HDL levels and increased risk of ASCVD. Low HDL is often the result of genetic factors (it may run in families) and is regularly accompanied by elevated levels of low-density lipoprotein cholesterol (LDL) and triglycerides, both of which are considered harmful. Patients with other risk factors for ASCVD, such as obesity, metabolic syndrome and diabetes mellitus, are more likely to have low HDL levels.

Anyone with low HDL should make note that this is a marker of increased risk of future ASCVD and make sure their weight, blood glucose level and blood pressure are normal.

There is no good evidence that raising HDL with medications lowers cardiovascular risk. The most impact you will have on raising HDL will come from getting regular exercise, losing weight if necessary, eating a healthy diet and not smoking.

Because HDL is not all “good,” you should use medications to treat elevated LDL and triglycerides, if your physician recommends it. Risk calculators take into account many other risk factors in addition to an individual’s lipid profile when predicting future risk of ASCVD, including age, blood pressure, race, smoking and diabetes. Your physician will use this information to make guideline-based recommendations about when or if you should begin taking cholesterol-lowering medications. ■

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advice, which should be obtained
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