

Atrial fibrillation

BY TAMAS BALOGH, M.D., F.A.C.C.

ATRIAL FIBRILLATION IS ONE OF the most common forms of irregular heartbeat (arrhythmia). Although relatively rare in younger people, it's prevalent in those over age 60. Chances are, someone in your family or someone you know has atrial fibrillation.

A LITTLE BACKGROUND

The two upper chambers of the heart are called the atria. These thin-walled chambers receive and pool the blood from veins. When they contract, they empty their contents into the ventricles, the pumping chambers of the heart. Under normal conditions, these contractions occur at a regular rate between 60 and 100 times a minute (the same as your heart rate). When you have atrial fibrillation, the atria do not contract properly, causing irregular contractions of the heart, or fibrillation. (Under ultrasound, it looks as if they are "shivering in cold.") They still fill with blood and the blood still empties into the ventricles when the atria are full, but the process is not as effective as it should be.

The most common causes of atrial fibrillation are hypertension, atherosclerosis (hardening of the arteries), aging, heart failure, valvular heart disease (leaky heart valves), thyroid dysfunction and sleep apnea.

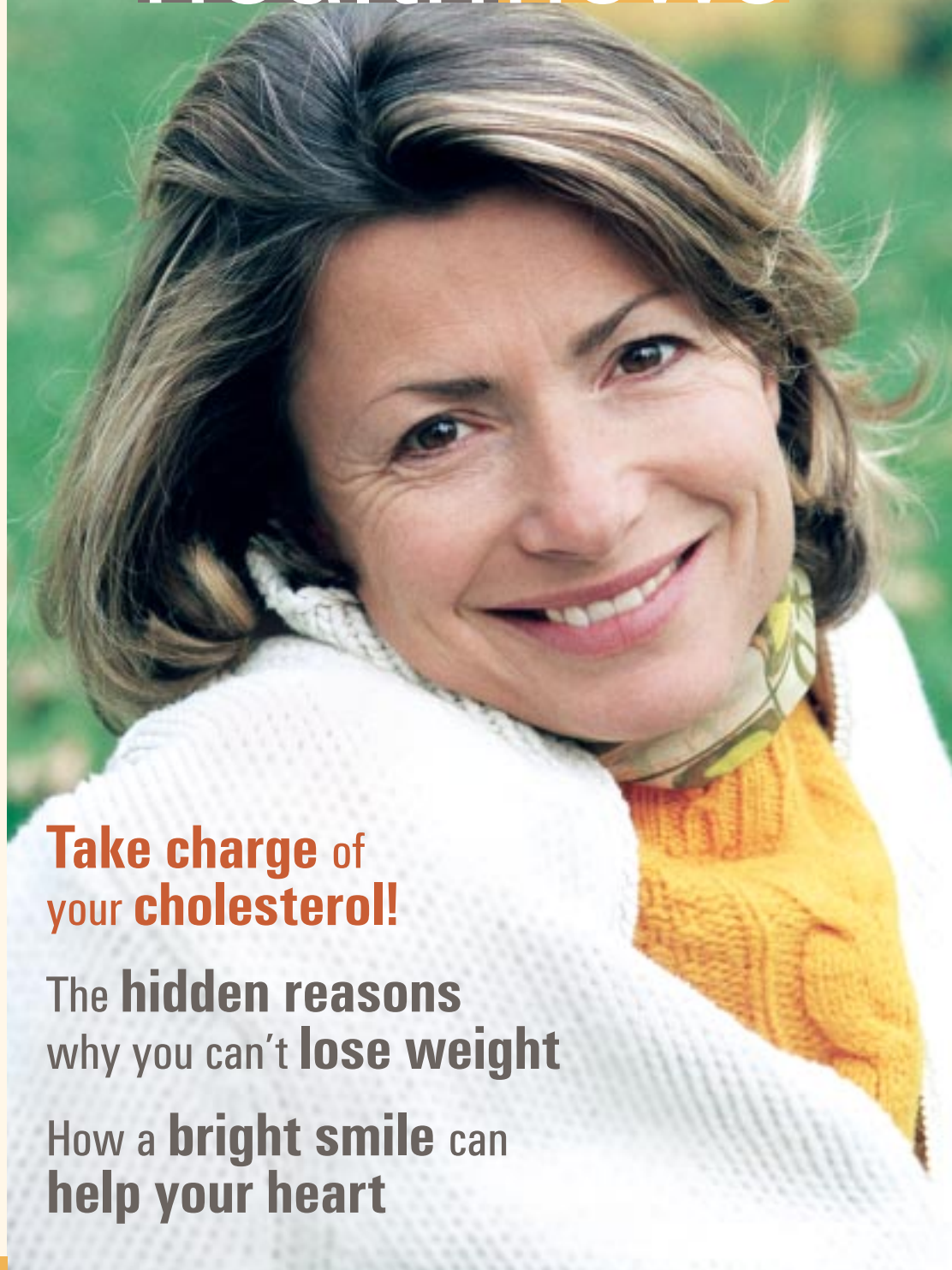
Atrial fibrillation can be paroxysmal, meaning it only occurs in spells. The spells can last from a few seconds to several hours. Most people who have these spells are aware of them. They feel rapid heart palpitations and become weak.

| continued on page 5 |

At Blue Ridge Cardiology and Internal Medicine, *you* are part of our medical team when it comes to restoring your health. We work with you on your specific problem or concern because every patient is an individual.

Blue Ridge Cardiology and Internal Medicine

heart healthnews



**Take charge of
your cholesterol!**

**The hidden reasons
why you can't lose weight**

**How a bright smile can
help your heart**

TREADMILL TEST NOT ALWAYS BEST FOR WOMEN?

If you suffer from chest pain, your doctor may send you for an exercise treadmill test to check for clogged arteries. However, findings reported in the *American Heart Journal* say this treadmill test doesn't always detect the problem in women—even when using an exercise test designed for females. In a study of 96 women with suspected coronary disease, heart X-rays showed that 29 women had significant narrowing in at least one coronary artery. However, the treadmill test detected a problem in only nine of them. What's more, of the 67 women

with little or no blockage, only 35 had a normal exercise test. Further studies are still needed to determine the best way to diagnose artery blockages in women. ♥



IT'S NEVER TOO LATE TO START BREAKING A SWEAT

Exercise can help cut your risk for heart disease and diabetes, no matter how late in life you start, say researchers from the University of Western Ontario. Investigators compared two groups of healthy but sedentary adults ages 55 to 75. One group began regular exercise and the other group remained sedentary. After 10 years, about 28 percent of the sedentary group developed metabolic syndrome, a collection of factors—which include high cholesterol and blood pressure—that raise the risk for heart disease and diabetes. Only 11 percent of the exercisers developed the syndrome. ♥



POMEGRANATE JUICE—DRINK UP FOR YOUR HEART



An apple a day may keep the doctor away, but when it comes to your heart health, eat a pomegranate, too. The juice of the deep red fruit seems to keep fatty deposits from forming on artery walls. Researchers tested pomegranate juice's effect on mice bred to have high cholesterol and on human heart cells isolated in a lab. The juice reduced the rate of plaque buildup in the mice by 30 percent and increased by 50 percent the heart cells' production of nitric oxide, a substance that aids healthy blood vessel function.

Pomegranates are also a good source of potassium, vitamin C and other antioxidants. ♥

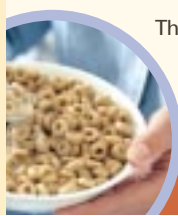
POPEYE WAS RIGHT

If your diet lacks magnesium, a mineral found in spinach and other dark green, leafy vegetables as well as in halibut, almonds and cashews, you may be at risk for coronary artery disease. Researchers from Northwestern University School of Medicine studied nearly 3,000 people by measuring calcium in their coronary arteries, an indicator for clogged blood vessels. They also studied their lifestyle habits. Fifteen years later, doctors tested the subjects again. Those who consumed the least amount of magnesium had the highest calcium levels. Apparently, Popeye has strong arteries as well as strong muscles. Now if he'd just kick that tobacco habit. ♥



did you know?

- ▶ As many as 40 percent of women who develop **gestational diabetes** during pregnancy will develop type 2 diabetes later in life.
- ▶ Rapid heart rhythms account for most sudden cardiac deaths. Tachycardia, a **heart rate of more than 100 beats a minute**, may be controlled with medication or corrected with an implantable defibrillator.
- ▶ As many as 8 million to 12 million Americans have **peripheral artery disease (PAD)**, but most people don't have any symptoms, and many mistakenly blame PAD's muscle cramping, pain or tiredness when walking or climbing stairs on a back or muscle problem.



BREAKFAST—DON'T LEAVE HOME WITHOUT IT

Think skipping breakfast is a good way to slash calories? Think again. According to a two-week study in the *American Journal of Clinical Nutrition*, people who skip breakfast put their waistlines—and their hearts—at risk. Researchers found that when the participants—healthy, normal-weight women—skipped breakfast, they had higher cholesterol

levels and poorer insulin resistance, which can lead to diabetes.

They also ate more calories on nonbreakfast days, which suggests that passing on the morning meal will eventually cause weight gain. ♥

Crunching the numbers: Ways to combat high cholesterol

THE BAD NEWS: HIGH CHOLESTEROL plays a key role in whether you develop heart disease or suffer a stroke or a heart attack. The good news: You can do something about it.

Excess cholesterol, a waxy, fatlike substance in your blood, builds up on artery walls, reducing blood flow, which can lead to heart attack or stroke. Many factors contribute to high cholesterol. While you can't change your genes, age or gender—which all affect cholesterol—you can take the following steps to improve your cholesterol levels and your health.

LEARN WHERE YOU STAND

First, you'll need a lipoprotein profile, a blood test that measures your:

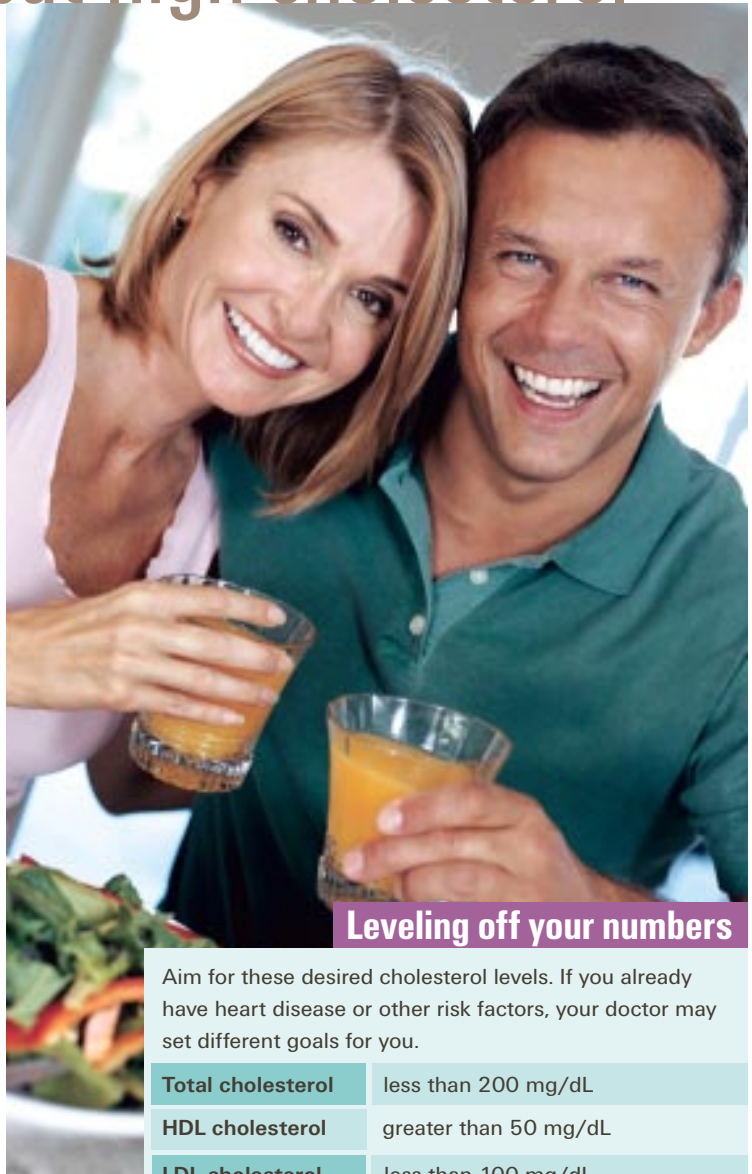
- **total cholesterol**
- **LDL (low-density lipoprotein) cholesterol**, the “bad” cholesterol that builds up in your arteries
- **HDL (high-density lipoprotein) cholesterol**, the “good” cholesterol that helps carry away LDL cholesterol to prevent buildup
- **triglycerides**, another blood fat that increases your risk of heart disease if levels are high

Second, to improve your cholesterol profile and reduce your health risk, you'll need to lower your LDL cholesterol and raise your HDL cholesterol to desired levels by:

- **Eating smart.** Certain types of fats—saturated fat, trans fats and dietary cholesterol—raise blood cholesterol. To lower LDL cholesterol, limit saturated fat to less than 7 percent of daily calories, avoid trans fats (found in many baked goods) and keep dietary cholesterol at less than 200 milligrams a day. Use polyunsaturated or monounsaturated fats like safflower, sesame, sunflower, corn, soybean, canola, olive and peanut oils. Eat no more than six ounces of lean meat, fish or skinless poultry a day. Choose plenty of fruits, vegetables and whole-grain foods.

Switch to fat-free or low-fat dairy products; increase soluble fiber found in foods like oats, beans and citrus fruits; and use cholesterol-lowering margarines and salad dressings that contain plant stanols or plant sterols.

- **Adopting healthier lifestyle habits.** Regular exercise can help raise good cholesterol and lower bad chole-



Leveling off your numbers

Aim for these desired cholesterol levels. If you already have heart disease or other risk factors, your doctor may set different goals for you.

Total cholesterol	less than 200 mg/dL
HDL cholesterol	greater than 50 mg/dL
LDL cholesterol	less than 100 mg/dL
Triglycerides	less than 150 mg/dL

terol. Get up to 30 to 60 minutes of physical activity a day. Smoking lowers good levels and increases the blood's tendency to clot, so if you smoke, enroll in a program to help you quit.

- **Considering medication.** If lifestyle changes haven't improved your cholesterol enough, your healthcare provider may prescribe cholesterol-lowering drugs.

Once you've lowered your cholesterol, it's important to keep it low to reduce your overall risk of heart disease. This also means keeping your blood pressure below 120/80 mm Hg. ♥

The hidden

NOTHING'S MORE FRUSTRATING THAN DOING what you're told—keeping a food diary, watching your calorie count, heading to the gym daily—and still not losing the weight you want. Especially when your workout buddy seems to be shedding the pounds twice as fast.

It may be that you need to rev up your efforts. Perhaps you aren't being as conscientious as you think (take the quiz below). But it may be that something else is working against your best efforts. See whether any of the following secret saboteurs sound as if they could apply to you.

1 INSULIN RESISTANCE

Some estimates suggest that as much as one-quarter of the population experiences insulin resistance, particularly perimenopausal women. The condition prevents body tissue from properly storing the hormone insulin (which decreases blood sugar). Instead, insulin is released into the blood. If your weight gain is concentrated at your abdomen or you have high cholesterol, high blood pressure or hypertension, this may be what's stalling your weight loss. Ask your doctor to check your blood glucose levels—especially since insulin resistance can lead to diabetes and heart disease if left untreated.

2 BASAL METABOLIC RATE (BMR)

Your BMR is a measure of how fast (or slow) your body burns calories when you're at rest. Your BMR is inherited, but building muscle mass and exercising can adjust your BMR as well as help you burn calories while at rest. Very few people actually have a metabolism that's slow enough to significantly impact their ability to lose weight. But, if you suspect your BMR is low, talk with your doctor, because it can signal Cushing's syndrome, a condition in which your body produces excess amounts of the hormone cortisol.

3 THYROID DISORDERS

The butterfly-shaped thyroid gland at the base of your neck can be subject to a number of conditions that can impact your ability to lose weight since it helps regulate your hormones and impacts your metabolism. Hypothyroidism,

5 secret factors that may be hindering your weight-loss efforts

Are you fooling yourself?

Take this true or false quiz to see whether you know as much as you think you do about how to lose weight.

- Q.** Thirty minutes of exercise daily is all it takes to slim down.
- A. False.** Of course, 30 minutes is better than nothing, but federal dietary guidelines say as much as 60 to 90 minutes of moderate-intensity activity daily is needed to sustain weight loss.
- Q.** Swapping fresh juices for sugared sodas will help reduce the number of calories you consume.
- A. False.** While juice can be rich in essential vitamins, it can also be loaded with sugar, which packs on the calories. Read labels carefully and drink water or low-fat milk when possible.
- Q.** For your afternoon snack, one apple counts as one serving of fruit.
- A. True or false:** It depends on the apple's size. An extra large Golden Delicious may count as more than one serving of fruit, again adding more calories to your day than you're counting.

or underactive thyroid disease, occurs when the gland doesn't produce enough hormone. Hypothyroidism can cause you to gain 10 or 20 pounds, and the weight is generally fluid buildup. A blood test can determine whether you have a sluggish thyroid.

4 LACK OF SHUT-EYE

We all know being tired makes you cranky, but researches have found it can also make you hungry. In one study, people who were sleep deprived craved more high-fat, high-carbohydrate foods than those who got a solid eight hours. If you are chronically sleep deprived, try adding more shut-eye to lessen your appetite.

hurdle

Is weight-loss surgery right for you?

It sounds like a magic bullet: Schedule a surgical procedure and come out 50 or 100 pounds lighter. But bariatric surgery, also called gastric bypass surgery, is a serious undertaking. It isn't an instant fix and it isn't for everyone.

Talk to your doctor to learn more if you:

- have a body mass index (BMI), which measures your weight relative to your height, of more than 40.
- have a BMI of between 35 and 39, in addition to other conditions such as sleep apnea, high blood pressure or diabetes.
- are willing to change your eating habits dramatically, opting for five or six small, low-fat meals a day rather than three squares. If you don't stick to this diet, you're likely to experience vomiting and diarrhea.
- have been unable to lose weight—or keep weight off—by other means.

You should talk to your doctor about nonsurgical weight-loss alternatives if you:

- have health conditions that make being under the effect of anesthesia a serious risk to your health.
- have an addiction to alcohol or drugs or have a psychiatric disorder.
- are overweight but not obese. Patients who respond best to this surgery are at least twice their ideal weight.

5 PRESCRIPTION MEDICINE

It's one of the unfair elements of science. A medication that makes you feel better in one area can have a side effect that makes you feel worse in another. Antidepressants are one category of drug that can have the unwanted side effect of making you gain weight. Steroids, some hormones and diabetes medications can do the same. If your weight gain—or weight-loss plateau—is timed to the use of a new drug, ask your doctor about possible weight-related side effects. ♥

HEART-SMART *fact*

Counting calories or carbs is not enough. To lose weight in a healthy way, you'll need to limit intake of saturated fat, trans fat, cholesterol, sodium, sugar and alcohol.

Atrial fibrillation

continued from page 1

Sometimes they experience shortness of breath and, occasionally, have some chest pain. In these patients, we prescribe medications (called antiarrhythmics) to prevent these spells. Even with the best medicines, we can only control the condition to a certain degree. Most often, the goal of the therapy is to minimize the spells' frequency and duration.

Atrial fibrillation that continues is called persistent atrial fibrillation, and if it goes on for longer than two or three months, it's called chronic atrial fibrillation. Sometimes, cardioversion is needed to restore normal sinus rhythm when medication fails to stop fibrillation. During cardioversion, a doctor applies a small amount of electric shock through the chest wall while the patient is asleep. It only takes a few minutes and can be done as an outpatient procedure. This procedure is very successful unless the atrial fibrillation has been present for more than six to 12 months. The longer it has been present before this procedure, the less likely we are to restore normal sinus rhythm. In elderly people, it may not be important to restore normal sinus rhythm. If we thin the blood adequately to prevent strokes and control the heart rate, the patient has the same quality of life and life expectancy as a person with normal sinus rhythm.

CHRONIC ATRIAL FIBRILLATION

We focus on two main problems when someone has chronic atrial fibrillation. First, we want to prevent stroke. When you have atrial fibrillation, the blood flow in the atrium is slow, allowing the formation of tiny blood clots in the heart. These blood clots are typically small, like a pencil tip, although they can be larger. They attach themselves to the inside of the atrial walls. Problems occur when they break off and travel in the blood stream into the arterial system. The clots can get stuck in a small artery in the brain and cause a stroke. The risk is considerable. Every year, about 5 percent of people who have atrial fibrillation suffer strokes. To avoid stroke, we prescribe a blood thinner called warfarin, which prevents blood clots from forming.

Because different people need different amounts of warfarin to achieve the same affect, doses need to be individualized. Even in the same person, the warfarin effect may vary from month to month. So, it's important to check your blood once a month if you are taking this medication. The good news is that if you have atrial fibrillation and take warfarin at the right dose, your stroke risk is about the same as that of the general population. Aspirin, although it's a blood

continued on page 8

heart healthnews

Call our office between
9 a.m. and 5 p.m.

Dobson: 336-386-8270

Elkin: 336-526-7997

Elkin Internal Medicine: 336-835-9355

Mt. Airy: 336-719-2440

N. Wilkesboro: 336-667-1001


Sparta: 336-372-5911

Yadkinville: 336-679-2733

3HCM

FALL 2005 5

Floss your way to better heart health



YOUR SMILE MAY SAY A LOT about your mood. But what does it reveal about your heart? More than you may think. Having gum disease is associated with diabetes, cardiovascular disease, heart attack and stroke. People with gum disease are nearly twice as likely to have coronary artery disease or suffer a fatal heart attack compared to those with a healthy mouth.

WHAT IS GUM DISEASE?

Periodontal, or gum, disease is a bacterial infection. It begins when bacteria forms plaque, which hardens to tartar, on your teeth. When tartar remains, it irritates the gums, causing them to become inflamed and swollen and to bleed easily, a condition called gingivitis. If left unchecked, gingivitis can progress to periodontitis, in which gums pull away from the teeth, leaving pockets where bacteria collect and break down the bone and connective tissue holding your teeth in place.

HOW DOES IT HURT MY HEART?

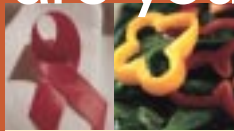
Several theories explain the link between gum disease and heart disease. One theory says bacteria in the mouth enter the bloodstream and attach to fatty plaques in the arteries, contributing to clot formation. These clots may obstruct blood and oxygen flow, resulting in a heart attack or a stroke. Another idea suggests the inflammation caused by gum disease contributes to plaque buildup in the arteries. While experts have known that people with diabetes (a major risk factor for heart disease) are more likely to have gum disease, recent research suggests it's a two-way street: Having gum disease makes it more difficult for people with diabetes to control their blood sugar.

What does this mean if you're one of the estimated 80 percent of American adults with some form of gum disease? It means taking care of your mouth is an important step toward protecting your heart. Be sure to:

- Brush and floss daily.
- Eat a well-balanced diet.
- Don't smoke.
- See your dentist for professional cleanings and checkups at least twice a year.
- Seek prompt treatment for any gum disease.
- Tell your doctor about your oral health and discuss how often you need to be screened for heart disease.

If you already have diabetes or heart disease, protecting your oral health and treating gum disease is especially important for you. See a dentist or periodontist for an evaluation. ♥

are you heart smart?



If you want to be heart healthy, you have to be heart smart. Test your knowledge by answering true or false to the following statements. Then check the answers below to see how well you did.

QUESTIONS

1. Heart failure happens rapidly and often comes as a surprise.
T ■ F ■
2. Women who have reached menopause are more likely than men to develop high blood pressure.
T ■ F ■
3. People who already have a heart condition should get an annual flu shot.
T ■ F ■
4. For exercise to be vigorous enough to strengthen your heart, you have to go "all out" for at least 20 minutes.
T ■ F ■

ANSWERS

1. **False.** Heart failure, a condition in which the heart's pumping action is weak and unable to pump blood throughout the body, develops over time. The progressive weakening may cause blood and fluid backup in the lungs; fluid buildup in the feet, ankles and legs; tiredness; and shortness of breath.
2. **True.** A woman's risk for high blood pressure rises considerably after menopause.
3. **True.** Flu and pneumonia pose significant risks for heart patients because these lung infections reduce the body's ability to take in oxygen, causing the heart to work harder. Ask your cardiologist whether you should get a flu shot this year.
4. **False.** Aim to exercise with an effort that keeps your heart rate within 50 percent to 75 percent of your maximum heart rate (220 minus your age). For example, a 40-year-old person should keep his or her heart rate between 90 and 135 beats per minute [$220 - 40 = 180 \times 0.5 = 90$]. Another guide: You should be able to talk, but not sing, while you work out.

Understanding valvular heart disease

CARDIOVASCULAR DISEASE comes in many forms: High blood pressure, coronary heart disease and stroke are probably the three types you hear about most often. Another form is valvular disease, which affects the valves that control blood flow into and out of your heart.

Valvular disease occurs when a valve no longer fully opens or closes, doing an inadequate job of allowing blood to flow freely through your arteries or keeping it away from places it doesn't belong. Some people are born with a valve defect and may not know it until complications occur later in life. Your valves can also become damaged when calcium deposits build up as you age. A heart attack or a case of rheumatic fever, too, can damage a valve.

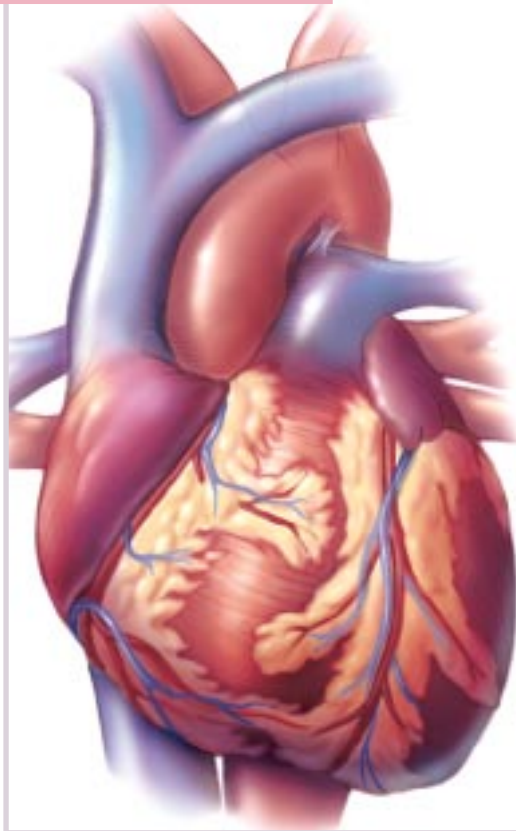
The disease can remain symptomless until it becomes severe. As it progresses, you may experience symptoms like fatigue, shortness of breath, chest pain and dizziness. Sometimes your doctor may detect a heart murmur—a sign of a damaged valve—when he or she listens to your heartbeat through a stethoscope. If left undetected, some forms of valvular disease can result in heart failure.

The severity and treatment of valvular disease depend on the type. The most common types include the following:

- **Mitral valve prolapse** occurs when you have a leaky valve that lets blood flow back into your heart. Most patients with the disorder never need medical attention other than occasional monitoring. However, if too much blood flows back into your heart, you may have **mitral valve regurgitation**, which can require surgery.

- **Aortic valve regurgitation**, like mitral valve regurgitation, occurs when blood flows back into your heart through a leaky valve, in this case the aortic valve, which releases blood from your heart to your body's main blood vessel, the aorta. The same treatment applies: Surgery to repair the problem.

- **Mitral valve stenosis** occurs when a valve becomes narrow and obstructs blood flow. If the condition



Keeping the flow in check

Here are some precautions you can take to help prevent valvular disease or reduce its complications if you already have a defective heart valve:

- Keep your cholesterol under control to prevent calcium from building up in your valves.
- Follow a healthy lifestyle—stay active, eat right, avoid stress and get plenty of sleep—since a heart attack can cause valvular disorders.
- If you develop strep throat, see a doctor for treatment. Strep throat can develop into rheumatic fever, which can damage your valves.
- Let all your healthcare providers, including your dentist, know that you suffer from a valve disorder. Since invading bacteria can cause a seemingly harmless case of valvular disease to develop into endocarditis, you'll need to take antibiotics before any dental or medical treatment to ward off infection.
- See your doctor if you feel fatigued, short of breath, dizzy or faint to prevent existing valvular disease from worsening.

becomes severe, you'll need surgery to repair or replace the valve. Mild cases can be treated with medications to control symptoms like an irregular heartbeat.

- **Aortic valve stenosis** occurs when the aortic valve narrows, preventing blood from easily leaving your heart to circulate. This forces your heart to pump harder and eventually weakens it. Medication will control your symptoms. If the stenosis becomes severe, surgery will be necessary.

- **Endocarditis** is an infection in your heart's inner lining. People who already have a valve disorder are at high risk for developing endocarditis, which can severely damage the valves. This infection occurs when bacteria elsewhere in your body travels to your heart. Endocarditis is fatal if left untreated. Fortunately, it's rare in people with otherwise healthy hearts and whose immune systems will destroy the bacteria. However, it can be spread by sharing or using contaminated needles or syringes. Treatment requires immediate hospitalization and intravenous antibiotics.

Just as with other types of cardiovascular disease, people who smoke or are overweight are more likely to develop valvular disease than fit nonsmokers. Other risk factors include high blood pressure, high cholesterol and high blood sugar. ♥

Blue Ridge Cardiology and Internal Medicine



TAMAS BALOGH, MD
CARDIOLOGY



CATALIN BURCIU, MD
INTERNAL MEDICINE



ZUZANA R. BANAS, MD
INTERNAL MEDICINE



ANDRAS NEUMARK, MD
INTERNAL MEDICINE



TAMAS SOOS, MD
INTERNAL MEDICINE



LUCIAN SORESCU, MD
INTERNAL MEDICINE



TOMAS VYBIRAL, MD
CARDIOLOGY



JAN KRISKA, MD
INTERNAL MEDICINE



IOANA APOLTAN, MD
INTERNAL MEDICINE



ANGELA BOWMAN, PA-C
INTERNAL MEDICINE



FARAH ABDULSALAM, MD
INTERNAL MEDICINE



MURUG SUBBIAH, MD
INTERNAL MEDICINE



MIHAELA SORAN, MD
INTERNAL MEDICINE



JENNIFER CHAPMAN, MD
FAMILY PRACTICE



HARITHA BOPPA, MD
INTERNAL MEDICINE



VENKATA MANNAVA, MD
INTERNAL MEDICINE



DANA WILLIAMS, PA-C
FAMILY PRACTICE



JOSE CALVO, MD
INTERNAL MEDICINE



PATRICIA WILLIAMS, FNP-C
FAMILY PRACTICE



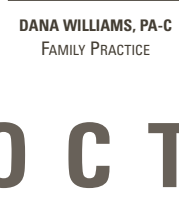
MARJORIE TRUE, FNP-C
FAMILY PRACTICE



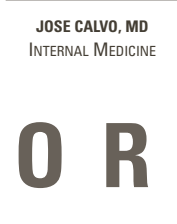
KRISHNARAJ DESHPANDE, DO
INTERNAL MEDICINE



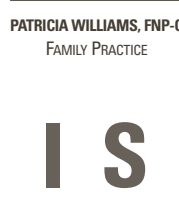
VENKATA MANNAVA, MD
INTERNAL MEDICINE



DANA WILLIAMS, PA-C
FAMILY PRACTICE



JOSE CALVO, MD
INTERNAL MEDICINE



PATRICIA WILLIAMS, FNP-C
FAMILY PRACTICE



MARJORIE TRUE, FNP-C
FAMILY PRACTICE



REBECCA SUBBIAH, RD
DIETITIAN

THE DOCTOR IS IN

heart
healthnews

After Hours

If you need help after hours or on a weekend, call any of our offices.

*We are available
24 hours a day.*

3HCM

Atrial fibrillation

continued from page 5

thinner, is not as effective as warfarin.

The other problem we focus on is heart rate control. Most people who have atrial fibrillation have a fast, irregular heartbeat, called tachycardia. They need heart medication to slow down the heart rate so the heart doesn't race. In older people, one medication may do the job. However, most younger people need at least two daily medications. Digoxin, which has been around for hundreds of years and is derived from the plant foxglove, is one of the most common drugs used for this. Beta-blockers and calcium channel blockers are also used to control the heart rate in atrial fibrillation patients.

A novel therapy for restoring and

maintaining normal sinus rhythm is offered at certain large cardiology referral centers. It's called catheter ablation of atrial fibrillation. Using thin catheters, a doctor applies radio-frequency energy to the atrial wall at certain strategic spots to create tiny scars. The chaotic electrical signals that cause and maintain atrial fibrillation can't conduct through these tiny scars, and the fibrillation stops. The success rate exceeds 80 percent at centers that perform many of these procedures.

Since atrial fibrillation is such a common problem, research is currently under way to better understand this condition and to come up with better, more effective treatments. ♥