By Mike Haskew

Commonly known as high blood pressure, hypertension is reaching epidemic levels in the United States. Here’s what you need to know about it.

S
ilently, without symptoms, hypertension is creeping up on millions of Americans. Generally referred to as “high blood pressure,” hypertension is the most common type of cardiovascular disease—as many as 69% of people who have a heart attack, 77% of people who have a stroke, and 74% of people with chronic heart failure have it.

In the autumn of 2012, TIME Magazine reported that hypertension-related conditions account for approximately 1,000 deaths per day and that the condition is second only to tobacco use among the primary risk factors to public health. Hypertension also takes a serious financial toll, with related health care expenditures racking up $34 billion every year.

So what is hypertension, exactly? Judging by its name, many think the condition has something to do with stress or anxiety. In fact, hypertension is simply when the amount of pressure, or force, your blood exerts against your body’s arterial walls rises to a dangerous level. If blood pressure rises and stays high over time, it can damage your body in many ways. One important one is that your arteries get stretched beyond their healthy limit.

The “Silent Killer”

The causes of hypertension are not always easy to identify—in fact, for many adults, no cause can be identified at all. However, health care experts do classify the condition into two categories: primary hypertension and secondary hypertension.

• Primary hypertension usually develops over a period of years as a person ages. Sometimes it is unexplainable. However, it often results from stiffening arteries, long-term build-up of plaque, and/or increased incidence of cardiac and vascular disease.

• Secondary hypertension is caused by an underlying condition such as kidney problems, blood vessel abnormalities, adrenal gland tumors, or the use of certain prescription or over-the-counter medications or illegal drugs.
Are your daily activities limited due to ankle pain? Ankle arthritis, most often occurring from osteoarthritis, rheumatoid arthritis, or post-traumatic arthritis, is one of the major causes of ankle pain.

Many individuals now have advanced surgical options to eliminate or substantially reduce ankle pain. If you have completed at least six months of conservative therapy with modalities such as bracing, anti-inflammatory medications, and a cane or crutches, and had little success, you may be a good candidate for an ankle replacement.

When the ankle is replaced, the worn-out joint surface is removed and resurfaced with a cobalt-chrome metal alloy and a polyethylene plastic spacer. These components replace the damaged cartilage surfaces and are designed to decrease arthritic pain while maintaining joint motion. Maintaining ankle motion likely reduces the possibility of developing arthritis in other lower extremity joints that may progress with other procedures that sacrifice motion. Preservation of motion may also help the patient to maintain a normal walking pattern.

Ankle replacement may not be the right choice for individuals with previous ankle infections, diabetes, neuropathy, or those who are severely obese. Moreover, young adults who engage in high-impact activities, such as running or jumping, may need to consider alternative treatment options.

Preoperative Evaluation

During your initial office visit, your surgeon will review your history and previous ankle images, such as radiographs, MRIs, and CT scans. Even if you have existing radiographs, your visit may include new standing weight-bearing radiographs of your lower extremity. We will answer any questions regarding the ankle replacement surgery and also discuss other treatment alternatives.

The Surgical Procedure

Ankle replacement is performed in an operating room suite with an anesthesiology team and an orthopaedic surgery team. This includes general anesthesia, and most patients elect to have a perineural nerve block. The nerve block is left in place for up to three days and often substantially decreases postoperative pain. The surgical procedure usually takes about two hours. Depending upon your age, medical conditions, and how far you’ve traveled, you will likely stay in the hospital overnight.

After Surgery

You will receive nursing care from our highly skilled nurses. Associates from our orthopaedic department will see you each day. A physical therapist may assist you in learning to walk safely with crutches or a walker without putting too much pressure on your new ankle.

You will spend most of the early recovery period resting and elevating your leg to decrease swelling. At the time of discharge, we will protect your ankle with a supportive splint. We will see you in the office about a week later to check your incision and place your ankle in a fiberglass non-weight-bearing cast. At your three-week office visit, sutures are removed, and you will receive a new walking cast. Typically, you can start ankle motion exercises at six weeks when you are transitioned into a removable boot. Most patients are back into a regular shoe around three months after surgery.

In the United States, current generation ankle replacement procedures began with an FDA approval process starting in 1999. In some studies, success rates of ankle replacement parameters have been equivalent to or better than ankle fusions. A 2011 study, for example, reported a 90% implant success rate at follow-up visits nearly 10 years after surgery. The advantages of replacement over fusion include the ability to maintain motion, protection of the surrounding joints from developing arthritis, and possibly quicker weight-bearing after surgery.

Jesse F. Doty, M.D., is a fellowship-trained foot and ankle orthopaedic surgeon now accepting new patients with foot and ankle problems at UT Erlanger Foot and Ankle Institute. His office is located in the Erlanger Medical Mall, 979 East Third Street, Suite C-223, phone 423-778-5995.
Since it also has no symptoms, hypertension is often found while doctors are treating another health issue or searching for some other problem. This is unfortunate, because if hypertension goes untreated, it poses major—even life-threatening—health risks. (Thus, its nickname “silent killer.”) In addition to higher risks for heart attack and stroke, hypertension increases the odds that you will suffer an aneurysm—a weakened location in a blood vessel wall that can rupture with life-threatening results. Other complications of hypertension include torn, thickened, or narrowed blood vessels in the eye that can affect vision, issues with your body’s metabolism that could lead to diabetes, and even trouble with thinking and memory.

Blood Pressure Awareness

The American Heart Association recommends that all adults receive a blood pressure screening at their regular health care visit or once every two years if their blood pressure is less than 120/80 mm Hg. If you think you may be at risk of hypertension, don’t hesitate to make an appointment with your doctor sooner than this.

If you’ve had your blood pressure checked before, you know that the procedure is simple and painless. The doctor or nurse places a cuff around your arm and uses a small pump to inflate the cuff while using a stethoscope to listen to your pulse. It only takes a few seconds to get a reading.

While no special preparation is needed for a blood pressure check, it’s a good idea to stay away from caffeinated beverages and certain over-the-counter cold and allergy medicines that can affect the accuracy of your reading. Be sure to tell your doctor if you are taking prescription drugs such as birth control pills. You want to make sure you get the right numbers.

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**Dr. Eric Guerra recently joined Hamilton Cardiology Associates. His specialty is interventional cardiology and vascular medicine, which deals with heart catheterization treatment of heart and vascular disease.**

Dr. Guerra is board certified in interventional cardiology. He completed his residency training in internal medicine at LAC King/Drew University Medical Center in Los Angeles. He completed a fellowship in cardiology at the University of Tennessee-Memphis and a fellowship in interventional cardiology at the University of Arkansas in Little Rock.

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**ExPERT ADVICE**

**Medications**

“Blood pressure medicines can, and often need to, be taken for life. It’s not that you can’t stop them once you start them, but that the conditions that make blood pressure a problem are usually ongoing and lifelong. Regular exercise and a healthy diet and lifestyle can also work to lower blood pressure, and with physician monitoring, patients may be able to reduce or even come off blood pressure medicines. However, many of the current blood pressure medications have additional benefits besides lowering blood pressure. They can also protect the kidneys, heart, and brain.”

Bryan Cheever, M.D., Hamilton Primary Care

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**For people who need to be more vigilant about monitoring, many stores now sell kits designed to help you test your blood pressure at home. Consider investing in one of these, particularly if you have been diagnosed with high blood or have a family history. Your local grocery store and shopping mall may also offer blood pressure stations for regular testing.**

**The Numbers Game**

Two key numbers are recorded when your blood pressure is taken: systolic pressure, which measures the pressure in the arteries when the heart beats, and diastolic pressure, which measures the pressure in the arteries when the heart rests between beats.

These two measurements are expressed one over the other. According to the American Heart Association, a normal blood pressure reading has a systolic pressure under 120 and a diastolic pressure under 80. A systolic pressure between 120-139 or a diastolic pressure between 80-89 classifies as “prehypertension,” meaning you need to start taking measures to lower it before you are at serious risk. High blood pressure is diagnosed when you have a systolic pressure of 140 or more or a diastolic pressure of 90 or more.

As you age, systolic blood pressure is more likely to rise, while diastolic pressure may actually decrease. This is why the National Heart, Lung, and Blood Institute (NHLBI) says the systolic number is a better indicator of hypertension among middle-aged or older adults. In younger people, the diastolic pressure remains an important indicator of risk for heart attack, stroke, or other serious health issues.

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**Hamilton’s recently completed Mashburn Cardiac Pavilion includes...**

...Two cardiac catheterization labs with stent capabilities, a dedicated endovascular lab, and a hybrid lab for cardiac or endovascular procedures. The hybrid lab houses the Artis Zeego, the first multi-axis system with robotic technology! It offers unmatched positioning flexibility to enable the most advanced clinical procedures and techniques. It enables physicians to see fine blood vessels and interventional devices in precise detail from almost any angle...all this while providing faster, more accurate diagnoses and improved outcomes for patients, the lowest possible radiation exposure.

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**Heart healing close to home.**

**Eric Guerra, MD**

**Interventional Cardiologist**

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Hypertension is very responsive to lifestyle changes, so correcting unhealthy habits may be a key part of your treatment. Don’t smoke. Exercise regularly. Eat a healthy low-sodium diet. Watch your alcohol intake, and try to reduce stress. Simple exercises like walking can reduce stress levels while improving physical fitness and managing your weight. Relaxation techniques and breathing exercises can also reduce anxiety and promote a sense of well-being. Each of these can contribute to lower blood pressure.

Limiting your sodium intake, in particular, can make a big difference in hypertension control. The Centers for Disease Control estimate that most Americans consume 3,300 milligrams of sodium per day. The U.S. Dietary Guidelines recommend limiting this to 2,300 milligrams a day, or even 1,500 for those 51 or older or those at risk of hypertension, diabetes, or kidney disease.

There is no time better than now to start making an effort to lower your blood pressure numbers. Take a few basic steps to guard against hypertension, and you can improve your overall health and quality of life for years to come.