

## Easing Hypertension

By Connie Midey

A few numbers can make a difference between normal blood pressure and hypertension, between the vibrant health Renisha Williams cherishes and the chronic medical conditions that have plagued her parents and grandparents.

And it doesn't always take medicine -- or medicine alone -- to shave those numbers to a healthful level of less than 120/80. Lifestyle changes can yield drops of two to 20 points in the top blood-pressure number, says the National Heart, Lung and Blood Institute.

"My first solution for patients (with elevated blood pressure) is to reduce caloric intake and start a moderate exercise program," says Phoenix cardiologist Jeffrey Greenberg. "That's a good natural solution."

Williams, co-owner of Balaros Hair Salons in Tempe and Chandler, sees proof that such steps work, and not only in her blood pressure, which went from pre-hypertensive to normal without medicine. Her cholesterol and blood-glucose levels also dropped, and she has shed more than 80 pounds over the past three years.

"My numbers are fantastic," she says. "It's diet and exercise, diet and exercise."

### ***The Science Supports Her Mantra.***

A nationwide controlled study supported by the National Institutes of Health found that what came to be known as the DASH diet (Dietary Approaches to Stop Hypertension) could lower blood pressure as effectively as a single medicine.

In the first two weeks of the trial, hypertensive study participants eating a diet low in fat and rich in fruits, vegetables and low-fat dairy products registered an average drop of 11.4 points in the top (systolic) number and 5.5 points in the bottom (diastolic) number.

For pre-hypertensive and hypertensive subjects overall, the decrease was a more modest but still beneficial 5.5 points systolic and 3.0 diastolic.

"We don't know the magic ingredients in the foods that helped (subjects) lower their blood pressure," says physician Thomas Moore, DASH study chairman while at Harvard and now associate provost and director of clinical research at Boston University Medical Center.

He's also the author of *The DASH Diet for Hypertension* (Pocket, 2003, \$7.99 paperback) and director of the DASH for Health online program ([www.dashforhealth.com](http://www.dashforhealth.com)).

Noting the difficulty of identifying what works and how, Moore says researchers have known for decades that vegetarians usually have lower blood pressure than non-vegetarians.

### ***Non-Drug Methods***

"But when people try pill forms of magnesium, calcium, potassium and combinations of those nutrients found naturally in a vegetarian diet, they can never really accomplish the same blood-pressure-lowering effect," he says.

With hypertension affecting about 29 percent of U.S. adults, what matters is that diet and other non-drug methods of decreasing blood pressure work, whether on their own or as a supplement to drugs.

Anti-hypertensive drugs -- and perhaps one day a vaccine that shows early promise for lowering blood pressure -- will continue to be necessary for many. In a trial of 72 patients reported in November, the vaccine, from Cytos Biotechnology, decreased systolic blood pressure by six points and diastolic by three points.

“There aren’t very many other chronic medical conditions that affect more than a quarter of the American adult population,” Moore says. “Hypertension has to be close to the top health problem we face, for one thing because it’s a major contributor to cardiovascular disease, and cardiovascular disease is the Number 1 cause of death in the United States .”

### ***Age-Related***

The high force of blood flow that characterizes hypertension can damage arteries in the heart, brain, kidneys and elsewhere in the body and hasten arteriosclerosis, the stiffening of the arteries that develops with age.

As with arteriosclerosis -- and in part exacerbated by it -- prevalence of hypertension also rises with age. According to a report in January, 67 percent of people 60 and older have high blood pressure. The report analyzed 2005-06 data, the most recent, from the “National Health and Nutrition Examination Surveys.”

But even for the older population, lifestyle modifications combined with prescription medicine (if needed) can reduce the odds of a heart attack or stroke, the two biggest risks of uncontrolled high blood pressure, says Greenberg, with Cardiovascular Consultants in Phoenix .

The other risks, including kidney failure and blindness, provide equally compelling motivation for taking preventive measures.

“Unfortunately, as people age they tend to become inactive and put on weight,” Greenberg says, “and those are the biggest contributors to high blood pressure.”

Still, eating well and staying active can lower blood pressure at any age, he says. So can quitting smoking, reducing alcohol intake and relieving stress.

### ***‘Share That With People’***

“A lot of people come in and say, ‘I’ve got to lose 50 pounds,’ “ Greenberg says, “and I say, ‘Whoa, whoa, whoa! Baby steps here!’ It’s not like you need to train for a marathon. Losing even 10 pounds and walking several days a week can have a benefit.”

Williams is sharing that message at the hair salons she owns with El Mira Mills. The women participate in an American Heart Association blood-pressure screening program at barbershops and salons serving predominantly African-American clients.

Forty-one percent of Black adults have high blood pressure, according to NHANES data, and every year more than 100,000 die from cardiovascular disease.

“Hypertension is a disease that’s plaguing our community,” Williams says. “It’s our lifestyle. Our soul food is very flavorful, but, unfortunately, we have a high-fat and high-salt diet.”

She has seen one grandmother die from heart disease, the other grandmother and a grandfather die from diabetes. Her other grandfather suffered a fatal stroke. Before her father’s death from lung cancer last month, he contended with high blood pressure and high cholesterol, and her mother does still.

“I figured I was next in line, so I needed to make changes,” Williams, 42, says.

“Had my grandparents been educated about high blood pressure, all of this might have been prevented.”

A single parent, she wants to be a good role model for her daughters, Shelisa, 16; Shatera, 19; and Shekira, 24. The girls are active and healthy, and they're proud that their mother is, too, after her years of being slowed by excess weight.

"Everything I did used to revolve around eating," Williams says, "and I've never been an athletic person. Now, we work out, we go to the park, and I totally enjoy it. My energy is through the roof. My back pain and knee pain are gone. Life is very sweet. I know what's possible, and I want to share that with people."

## ***Do Something About Your Hypertension***

Lowering your blood pressure naturally might reduce your need for medicine, but changes can be made safely only in conjunction with your doctor.

The first five lifestyle measures below, recommended in the National Heart, Lung and Blood Institute's most recent report on hypertension, have been shown in studies to produce drops in systolic blood pressure (the top number). For people 50 and older, the systolic reading is a more accurate measurement of high blood pressure than the diastolic (bottom) number, which tends to decline with age.

### **• *Lose Weight***

Recommendation: Maintain a healthful weight, defined for adults as a body-mass index of 18.5 to 24.9. BMI equals your weight in kilograms divided by your height in meters squared. Or skip the math and use the BMI calculator at [www.nhlbisupport.com/bmi](http://www.nhlbisupport.com/bmi).

Systolic blood pressure reduction: 5 to 20 points for 22 pounds of weight loss.

Something to think about: Even a 10-pound loss can make a difference, and your cholesterol and blood-glucose levels will benefit, too.

### **• *Adopt DASH Food Plan***

Recommendation: Consume a diet rich in fruits, vegetables and low-fat dairy products, and low in total and saturated (animal) fat.

Systolic blood pressure reduction: 8 to 14 points.

Something to think about: The DASH diet also emphasizes whole grains, poultry, fish and nuts and calls for reduced amounts of red meats and sweets, such as sugary beverages.

### **• *Reduce Salt/Sodium***

Recommendation: Reduce intake of all salt and sodium, including that used in cooking, added at the table and in commercially prepared foods, to no more than 1,800 milligrams per day.

Systolic blood pressure reduction: 2 to 8 points.

Something to think about: In a later study, DASH-Sodium, people with high blood pressure who followed the DASH diet at the lowest sodium level (1,500 mg daily) had an average systolic reading 11.5 points lower than participants following the control diet at the highest sodium level (3,300 mg, the average consumed by Americans).

### **• *Get Active***

Recommendation: Engage in regular aerobic activity, such as brisk walking, at least 30 minutes per day most days of the week.

Systolic blood pressure reduction: 4 to 9 points.

Something to think about: Exercise also reduces the risk for heart disease, diabetes and other health conditions and appears to improve brain health.

- ***Limit alcohol***

Recommendation: If you drink, limit consumption. For most men, that means no more than two drinks per day. For most men of lighter weight and for most women, that means no more than one drink per day.

Systolic blood pressure reduction: 2 to 4 points.

Something to think about: One drink equals 12 ounces of beer, 5 ounces of wine or 1 1/2 ounces of 80-proof whiskey.

## ***OTHER STEPS***

- Don't use tobacco. Smoking harms blood-vessel walls. If you need help quitting, call 602-372-7272 for the location of a free tobacco-cessation class near you.
- Relieve stress. Blood pressure rises in response to stress, so try listening to music, going for a walk, meditating, reading or whatever works best to relax you.

Drs. Thomas Moore of Boston and Jeffrey Greenberg of Phoenix and the National Heart, Lung and Blood Institute.

## ***Blood-Pressure Levels***

You can be diagnosed with high blood pressure, or hypertension, based on either the systolic (top) number or the diastolic (bottom) number. These classifications are for adults who are not taking medicine for hypertension and are not acutely ill.

Normal: Below 120 systolic and below 80 diastolic. Maintain your healthful lifestyle.

Pre-hypertension: 120-139 systolic or 80-89 diastolic. At this stage, make lifestyle changes. Ask your doctor whether you should take medicine, especially if you have other risk factors, such as diabetes, heart problems or kidney disease.

Hypertension stage 1: 140-159 systolic or 90-99 diastolic. At these levels and higher, talk with your doctor about lifestyle changes and prescription drugs to control the condition.

Hypertension stage 2: 160 or higher systolic or 100 or higher diastolic. At these higher numbers, treatment with medicine becomes more critical, but lifestyle changes can enhance its effects.

Malignant hypertension: 220 or higher systolic or 120 or higher diastolic. This stage is considered a medical emergency, with body systems in serious risk of damage. See your doctor immediately.

Sources: American Heart Association and National Institutes of Health

## ***The DASH Menu***

Eleven years after the DASH (Dietary Approaches to Stop Hypertension) eating plan was introduced, the federal government, American Heart Association and other groups recommend it for everyone, not just for people with high blood pressure.

“It’s a diet for good health,” says Boston University physician Thomas Moore, chairman of the group that designed the DASH diet and documented its ability to lower blood pressure, compared with other diets.

### ***Here’s what’s on the DASH menu:***

**Grains and grain products:** Seven to eight servings daily.

Examples: One slice of whole-grain bread, half-cup to 1 1/4 cups ready-to-eat cereal.

Provide: Energy and fiber.

**Vegetables:** Four to five servings daily.

Examples: Half-cup cooked broccoli, 1 cup raw spinach.

Provide: Potassium, magnesium and fiber.

**Fruits:** Four to five servings daily.

Examples: One medium orange, half-cup cantaloupe.

Provide: Potassium, magnesium and fiber.

**Low-fat or fat-free dairy foods:** Two to three servings daily.

Examples: 8 ounces milk, 1 cup yogurt.

Provide: Calcium and protein.

**Lean meats, poultry and fish:** Two or fewer servings daily.

Examples: 3 ounces lean (not fried) skinless chicken or salmon.

Provide: Protein and magnesium.

**Nuts, seeds and dry beans:** Four to five servings weekly.

Examples: 1/3 cup almonds, half-cup cooked pinto beans.

Provide: Energy, magnesium, potassium, protein and fiber.

**Fats and oils:** Two to three servings daily, mostly monounsaturated.

Avoid trans fat and limit saturated (animal) fat.

Examples: 1 teaspoon soft margarine, 1 tablespoon low-fat mayonnaise.

Provide: Energy and essential fatty acids. Also promote absorption of fat-soluble vitamins.

**Sweets:** Five servings weekly.

Examples: Half-ounce jelly beans, 8 ounces lemonade.

Provide: Satisfaction for a sweet tooth.

Sources: DASH for Health online program and National Institutes of Health

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