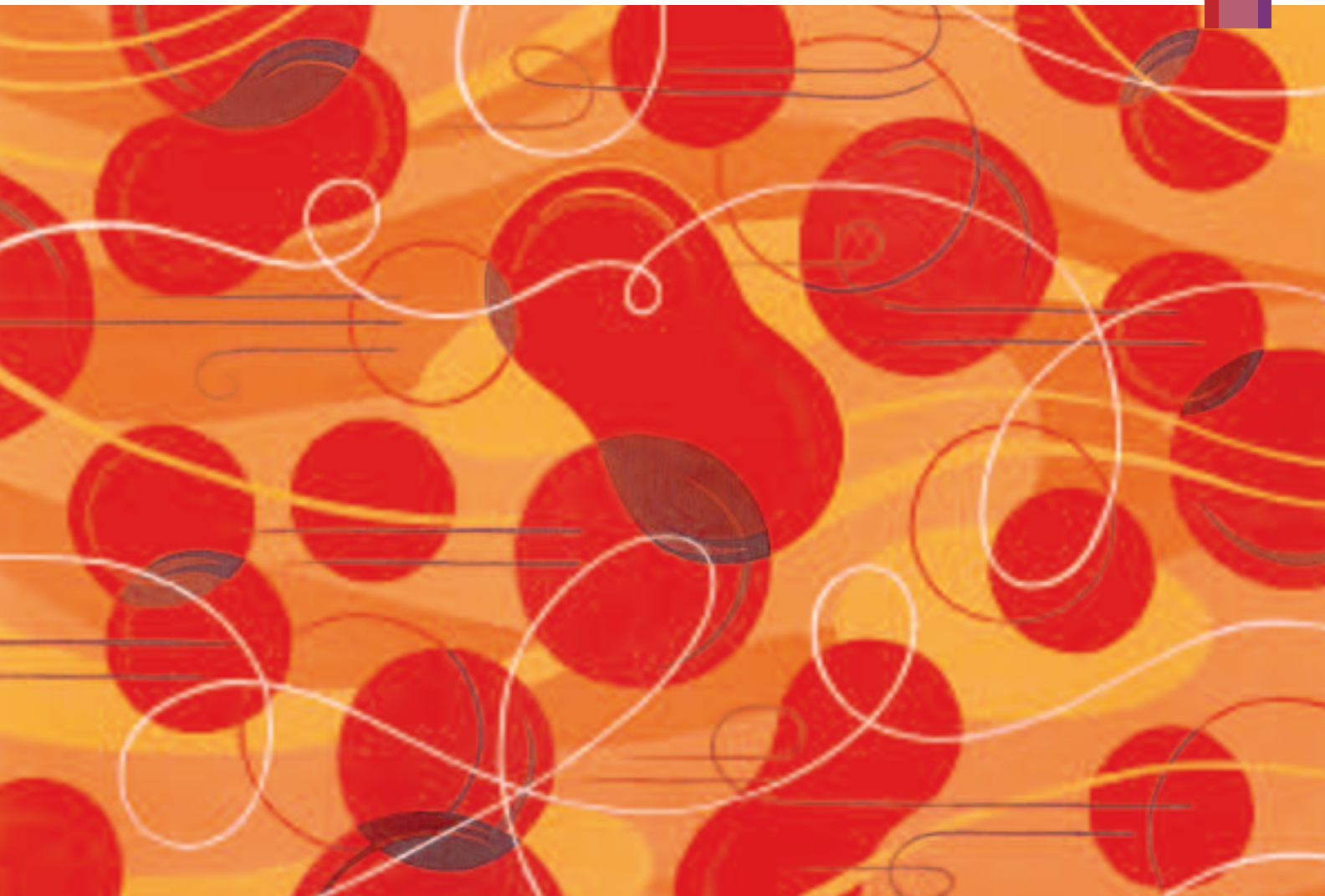


Good Medicine

the integrative approach to total well-being



FROM YOGA TO YARROW: Keep your corpuscles flowing smoothly with a range of alternative solutions.

less pressure

Get high blood pressure under control with a holistic plan of nutrition, herbs, supplements, complementary therapies, and stress relief.

tHE “SILENT KILLER,” they call it, and with good reason: While other diseases expose their presence via various aches and pains, high blood pressure, or hypertension, usually causes no symptoms at all as it systematically damages your health.

“Hypertension is a major risk factor for stroke, coronary artery disease, and kidney disease,” says

Maurizio Trevisan, M.D., dean of the School of Public Health and Health Professions at the University at Buffalo. It’s also linked to poor cognitive performance across the board.

In the United States, more than 50 million people have hypertension, but 30 percent don’t even know it. More women than men are afflicted, and while cases peak for men in the age range of 45 to 54, for women the incidence keeps rising with age.



By TOM WEEDE Illustrations by TRACY WALKER



by the numbers

HIGH BLOOD PRESSURE is just that. When the pressure of your blood flow escalates, it exerts excess force on arterial walls, injuring these vital passageways and ultimately harming your organs. Blood pressure can vary significantly due to factors like body position, eating patterns, and mood—stress and anger spike it—so a reliable assessment often requires two or more seated readings on separate occasions. (You can check your pressure with a home monitor, but bring the unit into your doctor's office to gauge its accuracy.)

According to the National Heart, Lung, and Blood Institute, a healthy blood pressure level is less than 120/80. (The higher, or systolic, number is the pressure generated when

the heart beats. The lower, or diastolic, figure is the pressure when the heart rests between beats.) Hypertension is defined as 140 or more systolic or 90 or more diastolic, with those at 120–139/80–89 considered “prehypertensive.” Starting at 115/75, the risk of cardiovascular disease doubles with every 20 points systolic and 10 points diastolic.

Risk factors include increasing age, family history, and race—African Americans have a higher incidence—as well as obesity, inactivity, fluid retention due to sodium, and the use of oral contraceptives, tobacco, or alcohol.

creative control

PHARMACEUTICAL treatments for hypertension include diuretics, beta blockers, and ACE (angiotensin

converting enzyme) inhibitors. But in the prehypertensive range among otherwise healthy people, lifestyle changes can control the condition.

“The most powerful behavior intervention is weight loss,” says Trevisan. “It’s been shown over and over again: If you lose weight, your blood pressure goes down.” Exercise helps control weight; it may also lower blood pressure by keeping the vessels from becoming rigid.

To an extent, your blood pressure mirrors what you eat. A diet dubbed DASH (Dietary Approaches to Stop Hypertension) reduces blood pressure, especially when sodium intake is kept at or below 1,500 milligrams per day. The plan is low in saturated fat, cholesterol, and total fat, and emphasizes fruits, vegetables, whole grains, and low-fat dairy. (For sample

COMP TIME

ALTERNATIVE AND COMPLEMENTARY health traditions can be helpful in reducing blood pressure. Discuss the following options with your physician, then use them in tandem with nutritional changes and anti-stress techniques:

Herbal Medicine

There are several approaches to treating hypertension with herbs. "It's important to understand the mechanism underlying the individual case of hypertension and to address the specifics," says Karta Purkh Singh Khalsa, a registered herbalist from Eugene, Ore., and author of *Body Balance*.

In relatively mild cases, **HAWTHORN** can promote dilation of constricted arteries. A typical dose is 80 to 300 milligrams of hawthorn extract in capsules, two to three times per day, or a tincture of 4 to 5 milliliters three times daily.

YARROW and **LIME FLOWER** are other vasodilators. "Lime flower is particularly good because it helps remove fatty deposits from the blood vessels," says Penelope Ody, author of the *Complete Guide to Medicinal Herbs*.

For very mild hypertension, Ody recommends an herbal tea made with equal amounts of dried lime flower, hawthorn, and yarrow (use 2 or 3 teaspoonfuls per cup) taken two or three times a day. "If someone's on medication, obviously they should continue their medica-

tion," she adds. "This should not be considered a substitute."

To address stress-related high blood pressure, calming herbs such as **CHAMOMILE**, **LAVENDER**, **LEMON BALM**, or **VALERIAN** may be helpful. If kidney function is contributing to hypertension, an herbalist could suggest **DANDELION** and **PARSLEY**.

GREEN TEA is a useful option for many patients. It decreases blood fats and can be effective in reducing blood pressure. Most studies demonstrating the benefits of green tea are based on three cups per day, notes Khalsa.

Finally, the South American herb **STEVIA**, best known as a sweetener, has shown favorable results during human and animal research. Available as a powder or a liquid, it can be added to foods.

A supplement called **BP MANAGER** (enzy.com) includes stevia, dandelion leaf, and hawthorn. A small study commissioned by the manufacturer noted reductions in blood pressure. By combining individual ingredients that are beneficial, the preparation may be effective, says Khalsa: "It's a shotgun formula."

Ayurveda

High blood pressure is tied to a person's predominant dosha (constitutional type): A vata tends to be more anxious, while a pitta is associated with intensity, explains ayurvedic practitioner Ed Danaher. For both these doshas, he recommends calming the nervous system with a soothing hot tea that's made by pouring water over equal parts of the botanicals **BRAHMI**, **GINKGO**, **JATAMAMSI**, and **TULSI**.

Because kapha types are more emotionally relaxed, Ayurveda holds that their high blood pressure is likely caused by blocked arteries. In this case, Danaher recommends a formula to benefit the cardiovascular system, combining equal parts **PASSIFLOWER**, **HAWTHORN BERRY**, **PUNARNAVA**, and **ARJUNA**; take 1/2 teaspoon two or three times daily.

Homeopathy

This discipline considers how a person uniquely responds to disease. "High blood pressure is related to the whole person, and it is the whole person who has to be treated," says Richard Mann, N.D., chair of the department of homeopathy at Bastyr University near Seattle. Someone whose hypertension is accompanied by unexpressed grief might be prescribed **NATRUM MURIATICUM**, while a patient exhibiting tension and irritability could be better served by **NUX VOMICA**. (For a condition as potentially serious as high blood pressure, self-treatment isn't appropriate; to find a practitioner, go to homeopathic.org.)

Traditional Chinese Medicine

Yin represents fluid, and depletion of yin tends to occur over time. "In Chinese theory, declining yin, particularly in the kidneys, liver, and heart, will cause blood pressure to rise," says Carlos Santo, N.M.D., a naturopathic physician in Scottsdale, Ariz. "**LIU WEI DI HUANG WAN** is a classic formula to nourish the kidneys and liver as we age." To ensure quality, Santo advises buying from a U.S. company such as Plum Flower (800-262-9929) or Health Concerns (800-233-9355).

ACUPUNCTURE treatments using low levels of electrical stimulation can cut blood pressure by up to 50 percent, according to an animal study at the University of California, Irvine. Targeting specific sites releases opioid chemicals in the brain, reducing heart activity and oxygen needs.

You may benefit yin with this **ACUPRESSURE** technique: Apply pressure to the inside of the leg, about four finger-widths above the ankle. "It's often tender here," says Santo. "It's a very well-known yin-nourishing point."

"The meridians that flow through a body are like rivers of energies," says Chris Oliver, C.Ac., an acupuncturist and chiropractor in Herndon, Va. "When a 'river' is blocked, the body gets sick or doesn't function properly. When you stimulate this energy to flow normally, the body is able to have better homeostasis."

menus and recipes, visit nhlbi.nih.gov and search for “dash.”)

The DASH regimen is rich in magnesium, potassium, calcium, and fiber. For reasons not fully known, the synergy of these nutrients appears to have a beneficial effect, especially when obtained through food. “If you pull [the nutrients] out and take them as separate supplements, you get a modest decrease in blood pressure,” says Jane Higdon, Ph.D., a research associate with the Linus Pauling Institute at Oregon State University and author of *An Evidence-Based Approach to Vitamins and Minerals*. “But when you put them all together in the diet, you get a better one.”

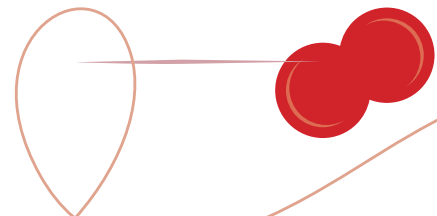
Of course, if your diet is deficient for some reason, supplements provide a useful backup. Here are the top nutrients to consider.

Magnesium: Research indicates that getting enough magnesium lowers your risk for hypertension. Food sources include dark green leafy vegetables, nuts, beans, and whole grains. For women over 30, the recommended daily allowance of magnesium is 320 mg per day. One-half cup of cooked spinach or 1 ounce of almonds has about 80 mg each.

Calcium: Observational and clinical studies suggest that calcium is an integral part of a diet that lowers blood pressure, according to the National Institutes of Health. The recommended amount for adults is 1,000 mg per day to age 50, and 1,200 mg a day after that. Food sources include all dairy products, sardines, fortified juices, and dark green leafy vegetables.

Vitamin C: Results are mixed, yet vitamin C may benefit cardiovascular health by enhancing the ability of blood vessels to dilate. (“This doesn’t necessarily lower blood pressure,” Higdon says.) A report in *The Lancet* found that systolic and diastolic pressures each dropped about 9 percent in hypertensive individuals taking 500 mg of vitamin C daily for one month. If you don’t get at least 400 mg a day in your diet, consider adding 250 to 500 mg in supplement form.

Omega 3s: It takes high doses of these fatty acids — at least 3 grams daily — to achieve a modest pressure-lowering effect. But more moderate intakes do promote heart health. The American Heart Association advises eating a variety of fatty fish at least



twice a week, plus walnuts, flaxseed, and canola and soybean oils. Ask your doctor before taking fish oil capsules, especially if you use blood thinners.

Coenzyme Q10: A few small studies have found benefits in lower-

ing blood pressure, but it's too early to know if supplementing is effective, Higdon says. Standard dosage in clinical trials ranges from 50 to 100 mg twice daily ingested with foods that contain fat; consult your health-care provider if you take blood thinners.

COPING WITH STRESS

KEEPING CALM IS KEY to controlling hypertension. Stress hormones like adrenaline and cortisol increase blood pressure by narrowing the blood vessels and boosting your heart rate. Some people get a minor bump, others a big jump.

Chronic stress can lead to blood pressure-related injuries of the arteries, heart, brain, and kidneys. And a study in the journal *Hypertension* found that anger and anxiety boosted the chances of developing high blood pressure.

Relaxation techniques stimulate the parasympathetic nervous system, says Carlos Santo, N.M.D. "This reduces blood pressure because it decreases platelet thickness, widens vessels, and slows heart rate." Here are six promising methods.

1. Yoga

Practicing yoga asana (posture) and pranayama (deep breathing) for eight weeks decreased stress, blood pressure, body mass index, and heart rate, concluded a study in *Holistic Nursing Practice*. To de-stress, it's important to be present in the moment—to be aware of your breath and stress levels, your thinking, and your motion, says Lydia S. Segal, M.D., chief of service for integrative medicine at Mid-Atlantic Kaiser Permanente Medical Group.

2. Qigong

It's like tai chi without the set patterns. Qigong involves breathing into the abdomen, rather than more shallowly into the chest, and thus activating the parasympathetic nervous system response. "Even five minutes a day can have a profound calming and relaxing effect," says Santo.

3. Ayurvedic Oils

Bhringaraj oil, applied to the scalp and soles of the feet, is thought to relieve stress. Another treatment, performed at ayurvedic spas, is shirodhara, in which a steady stream of warm oil is poured onto the forehead's "third eye." "It has a profound effect on the nervous system," says Ed Danaher, a practitioner with the Ayurvedic Institute in Albuquerque, N.M.

4. Biofeedback

According to research published in *Biofeedback and Self-Regulation*, about 50 percent of people with hypertension can reduce their blood pressure through biofeedback training. This technique teaches patients to control involuntary physical responses based on feedback from electrical sensors. For a directory of practitioners, go to biofeedback.net.

5. Pet Therapy

A four-legged friend may help moderate hypertension. A study in *Psychosomatic Medicine* showed that dog and cat owners had lower blood pressure than did non-pet owners both at rest and during two stressful events (doing math problems and immersing a hand in ice water).

6. Meditation

Positive results in reducing blood pressure have been achieved in clinical trials on meditation, though the results are still being debated. Most research has utilized Transcendental Meditation, in which you sit with your eyes closed for 15 to 20 minutes twice a day, repeating a mantra prescribed by a trained teacher. Still, any form of meditation, practiced regularly, will help defuse stress. Temporary relief can also be found through massage, aromatherapy, hypnotherapy, and visualization. 