

Relaxation Therapies

Before you medicate, meditate

Stress constricts the blood vessels and simultaneously makes the heart beat harder. The result is higher blood pressure. A good example is the white-coat hypertension many people develop during doctor visits. Another is a recent study by Japanese researchers who asked 10 people with high blood pressure to complete a difficult, therefore stressful, mental arithmetic test. Their blood pressure shot up and their hearts raced.^[66] Relaxation, on the other hand, dilates the blood vessels, calms the heart, and decreases levels of stress hormones; hence lower blood pressure.

Starting in the late 1960's, Harvard cardiologist Herbert Benson, M.D., now president of the Mind/Body Medical Institute there, was intrigued when people who practiced Transcendental Meditation (TM) claimed they could lower their blood pressure at will by meditating. Their claims proved true. Benson's studies of meditation led him to develop a secularized version, the relaxation response, which involves 20 minutes of quiet, eyes closed, deep breathing while emptying your mind and focusing on a single word or phrase (what practitioners of classic Indian meditation and TM call a "mantra"). Benson's studies show that in people with stress-induced high blood pressure, for example, those who suffer white-coat hypertension, the relaxation response can lower their pressure about 5 mmHg, a significant decrease for most people.^[67]

Many studies back up Dr. Benson.^[68] One involved 111 hypertensive African-American residents of Oakland, California. Charles Alexander, Ph.D., a professor at Maharishi University of Management in Fairfield, Iowa (the school established by the founder of TM) and colleagues assigned the participants, whose average blood pressure was 147/92 mmHg to meditation training, progressive muscle relaxation training (PMR, another relaxation technique), or a class in lifestyle modification for blood pressure control. Compared with those in the lifestyle class, the PMR participants enjoyed a modest decrease in blood pressure, but those who meditated showed a major drop--an average of 10/6 mmHg.^[69]

Biofeedback

If meditation isn't your cup of tea, there are other ways to enjoy deep relaxation. Biofeedback can teach you to lower your blood pressure quickly and easily in just a few months. A trainer attaches electrodes to various parts of your body and hooks them up to a visual meter. As the dial moves in one direction, your muscles are tensing; in the other, they're relaxing. You breathe deeply and focus on moving the needle into the deep relaxation zone. In one study, eight people with high blood pressure learned muscle relaxation with biofeedback, and in five months, reduced their average pressure from 145/90 mmHg to 131/81. [\[70\]](#)

Pet your pet

Many studies have shown that human-pet interactions--playing with a dog, having a cat purr in your lap, or gazing at a fish tank--can be profoundly relaxing: [\[71\]](#)

- At the University of Pennsylvania School of Veterinary Medicine, Aaron Katcher, D.V.M., measured the blood pressure of dog owners while they were reading books or greeting and petting their dogs. Their blood pressure was significantly lower while playing with their pets. [\[72\]](#)
- Another study by Dr. Katcher compared dog owners' blood pressure while they spoke with other people or talked to their dogs. It was lower during the pet interaction.
- Karen Allen, Ph.D., and James Blascovich, Ph.D., of the State University of New York at Buffalo, studied 45 women dog owners who took a challenging mental arithmetic test either with or without their dogs at their feet. Without their dogs, their blood pressure rose. With them, it hardly budged during the stressful test. [\[73\]](#)
- In another study, Dr. Allen measured the blood pressure of 100 women who lived alone. Half had dogs or cats. Repeated blood pressure measurements over six months showed that the pet owners had lower average pressure. [\[74\]](#)

Of course, some people don't care for pets, or are allergic to them. But if you enjoy having a pet, your animal can be your "best friend" in ways you might not have imagined.

Mellow out with music

Music, the poets say, soothes the soul. It also reduces blood pressure. As long ago as 1929, when radio and phonographs were still novelties, two researchers showed that using them to listen to music reduced blood pressure. [\[75\]](#)

Cathie Guzzetta, R.N., Ph.D., a professor of nursing at the Catholic University School of Nursing in Washington D.C., divided 80 people hospitalized for heart attacks into three groups. One received standard care, another learned the relaxation response, and the third received a 20-minute cassette of calming classical and popular music. The controls all showed high blood levels of stress hormones and rapid heart rates, both of which raise blood pressure. The relaxation and music groups, however, both showed significantly lower heart rates and stress-hormone levels. The music group was the least stressed, suggesting that music may be even more relaxing than meditation. [\[76\]](#)

What should you listen to? Whatever you like that's light, soft, and not too rhythmic, according to Andrew Weil, M.D., a professor at the University of Arizona College of Medicine and a noted advocate of combining mainstream medicine and complementary therapies.[\[77\]](#)

Visualize lower pressure

Visualization exercises are another relaxation therapy that can lower your blood pressure. New York City psychiatrist Gerald Epstein, M.D., author of *Healing Visualizations*, suggests this one: Close your eyes and breathe deeply. Imagine opening your freezer and removing several ice cubes. Imagine slowly washing your head, face, and neck with the ice. Feel the coolness seep through your skin and into your bloodstream. Envision an icy feeling tumbling down from your head to your toes. Open your eyes.[\[78\]](#)

“There's no question that visualization-based relaxation therapies can help lower high blood pressure,” says stress-management specialist Martin Rossman, M.D., co-director of the Academy for Guided Imagery in Mill Valley, California. Dr. Rossman has produced many relaxation tapes that combine music and visualization exercises. For a catalog, write the Academy for Guided Imagery at P.O. Box 2070, Mill Valley, CA 94942; (800) 726-2070.[\[79\]](#)

Herbal Medicine

Garlic is great

Garlic may be better known for cutting cholesterol, but it also lowers blood pressure. German researchers gave 47 people with hypertension either a placebo or deodorized garlic powder (Kwai). After 12 weeks, there were no changes in the placebo group's blood pressure, but among those who took garlic, diastolic pressure fell from an average of 102 to 91. (Their cholesterol and triglyceride levels also dropped significantly.)[\[80\]](#)

Christopher Silagy, M.D., a professor at Flinders University of South Australia, and Andrew Neil, M.D., of the Radcliffe Infirmary at the University of Oxford in the United Kingdom, analyzed eight studies of garlic (Kwai, 600 to 900 mg/day) as a treatment for high blood pressure. The herb reduced blood pressure on average 8/5 mmHg. The researchers said that over the long haul, such a decrease in blood pressure could reduce stroke and heart attack risk 30 and 20 percent respectively.[\[81\]](#) Dr. Duke recommends 1 clove a day, or its powdered equivalent.[\[82\]](#) “If you cook with garlic,” he says, “getting that much should be a snap.”[\[83\]](#) Garlic's close botanical relatives also help control blood pressure: onion, scallions, leeks, chives, and shallots. They don't pack garlic's punch, but they help.

Hawthorn

This herb has been used as a heart tonic for centuries, Dr. Duke says, notably for treating angina. One reason it works is that it reduces blood pressure. “Hawthorn dilates the coronary arteries,” Dr. Liva explains. In Cologne, Germany, researchers gave 78 people suffering congestive heart failure either a placebo or a hawthorn preparation (600 mg/day). Eight weeks later, those taking the herb registered a significant drop in systolic blood pressure.[\[84\]](#) Dr. Liva recommends taking a standardized extract (100 to 240 mg) three times a day.[\[85\]](#) Hawthorn extracts and tinctures are available at most health food stores. Dr. Duke says another option is a tea made with one teaspoon of dried herb per cup of boiling water steeped until cool. Drink up to two cups a day.[\[86\]](#)

Medical Measures

If nondrug approaches don't bring your pressure down sufficiently, your doctor will prescribe blood pressure medication. There are many different kinds of antihypertensive drugs. They all lower blood pressure. But they also cause side effects, and you may have to take them for life.

The most widely prescribed blood pressure medications include: diuretics, beta-blockers, calcium-channel blockers, and ACE inhibitors. Back in 1993, the National Institutes of Health's Joint National Committee on the Detection, Evaluation, and Treatment of High Blood Pressure, reviewed the safety and effectiveness of all these medications, and declared that only diuretics and beta-blockers should be used as first-line treatment, because only they have been proven to be safe and effective over the long haul. Calcium-channel blockers and ACE inhibitors are newer and have been less thoroughly researched. The Joint National Committee recommended prescribing them only if diuretics and beta-blockers--plus diet and lifestyle modifications--don't provide sufficient control.[\[87\]](#)

More recently, researchers at the Ochsner Clinic in New Orleans advised that for elderly people, doctors should prescribe only diuretics as first-line treatment. Their analysis of 10 studies involving 16,000 elderly people showed that compared with those taking beta-blockers, elderly people on diuretics suffered significantly fewer strokes, heart attacks, and deaths from all causes.[\[88\]](#)

Unfortunately, doctors have not taken these recommendations to heart. A recent survey of 35,000 pharmacies shows that diuretics and beta-blockers account for only 26 percent of blood pressure medication prescriptions, with supposedly second-line calcium channel blockers and ACE inhibitors racking up almost three times as many prescriptions--71 percent.[\[89\]](#) The reason is that the newer drugs cause fewer side effects. But because less is known about their long-term safety, those using them may face unpleasant surprises in the future.

Diuretics

Diuretics speed elimination of water from your body. Less water means less fluid in your blood vessels, which lowers your blood pressure. Diuretics also promote elimination of salt in your urine.

There are three major types of diuretics: thiazides (Diuril and many others), loop diuretics (Lasix, Bumex), and potassium-sparing drugs (Aldactone and others).[\[90\]](#)

But diuretics have a downside: They deplete potassium and magnesium, minerals vital to maintaining normal blood pressure. You'll probably be told to eat foods high in these minerals (potassium: bananas, oranges, orange juice; magnesium: dairy, nuts, seafood). Your doctor may also advise taking supplements. Diuretics may also raise cholesterol,[\[91\]](#) aggravate gout, and cause lightheadedness, muscle weakness or cramps, and sex problems, notably impotence.[\[92\]](#)

Beta-blockers

These drugs slow your heart so it beats less forcefully. Less force, means lower blood pressure.

Beta-blockers include: Inderal, Lopressor, Tenormin, and many others.[\[93\]](#)

But a slower heartbeat means that your blood circulation slows and your tissues get less oxygen. That often causes lethargy and sex problems, notably loss of libido and impotence. In

addition, some beta-blockers may decrease levels of high-density lipoproteins (HDLs), the “good” cholesterol you want to keep at high levels.[\[94\]](#)

Calcium-channel blockers

Calcium blockers stop calcium from entering your cells, which opens your blood vessels and reduces your heart’s force of contraction.[\[95\]](#)

These drugs include: Cardizem, Adalat, Procardia, Isoptin, and others.[\[96\]](#)

Calcium-channel blockers produce fewer side effects than diuretics or beta-blockers--hence their popularity--but they may cause constipation, headache, dizziness, lethargy, and impotence.[\[97\]](#)

ACE inhibitors

These drugs keep your body from making angiotensin, a compound that increases the fluid volume of your blood and constricts your blood vessels. ACE inhibitors reduce your blood volume, and dilate your blood vessels.[\[98\]](#)

There are several ACE inhibitors: Captopren, Vasotec, Prinivil, Zestril, and others.[\[99\]](#)

ACE inhibitors are popular because they cause fewer side effects than diuretics or beta-blockers, but headache, dizziness, lightheadedness, and a dry night-time cough are still possible.[\[100\]](#)

Drugs can control hypertension, but they don’t cure it. Usually these drugs must be taken for life. If you stop taking them, blood pressure often soars to previous hypertensive levels.

“If you must take blood pressure medication,” Dr. Gaby urges, “don’t stop using the nondrug approaches. Drugs are no substitute for the diet and lifestyle therapies that control blood pressure.”

Red Flag

If you have high blood pressure, or even persistently high-normal pressure, see your doctor for a professional evaluation.

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Treatment Options

An enormous number of drugs treat high blood pressure (see Medical Measures on this page), and mainstream doctors are usually quick to prescribe them. But many studies show that for blood pressure that is only mildly elevated (140/90 or lower), nondrug approaches work just as well, more cheaply, and with fewer side effects.[\[102\]](#) For example, in a position paper in the American Journal of Cardiology, Edward Fries, M.D., of the Hypertension Clinic at the Veterans Administration Medical Center in Washington, D.C., declared: “Few patients with [mild] hypertension require drug treatment. There is little evidence that they will achieve enough benefit to justify the costs and adverse effects of drug treatment.”[\[103\]](#)

Although there are many ways to reduce blood pressure once it's high, the best approach is prevention. Treatment reduces your risk of all the condition linked to hypertension, but your risk never returns to where it would have been if your pressure had remained normal.[\[104\]](#)

Track Your Blood Pressure Easily at Home

Everyone with hypertension should have a home blood pressure cuff ("sphygmomanometer"). Take your blood pressure regularly, and chart your progress as you reduce it. Both digital and mercury models are available at pharmacies, medical supply houses, and some department stores, or from mail-order catalogs. Take your blood pressure cuff in to your doctor annually to have its calibration checked.

Controlling Blood Pressure: What to Do When

These guidelines come from the Sixth Report of the Joint National Committee on Prevention, Detection, and Treatment of High Blood Pressure, sponsored by the National Institutes of Health.[\[105\]](#)

Blood Pressure	No Risk Factors	One or more risk factors*	If you have these illnesses**
High Normal 130-139/85-89	Lifestyle approaches	Lifestyle approaches	Drug therapy
Mildly High 140-159/90-99	Lifestyle approaches for 12 months	Lifestyle approaches for 6 months	Drug therapy
High 160+/100+	Drug therapy	Drug therapy	Drug therapy

* Risk factors include: smoking, high cholesterol, age over 60, family history, and being a man or a postmenopausal woman.

** Illnesses include: diabetes, stroke, heart disease, peripheral artery disease, eye damage (retinopathy), kidney damage (nephropathy).

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