

# BLOOD PRESSURE DOWN

THE 10-STEP PLAN
TO LOWER YOUR BLOOD PRESSURE

·····IN 4 WEEKS ·····

WITHOUT PRESCRIPTION DRUGS

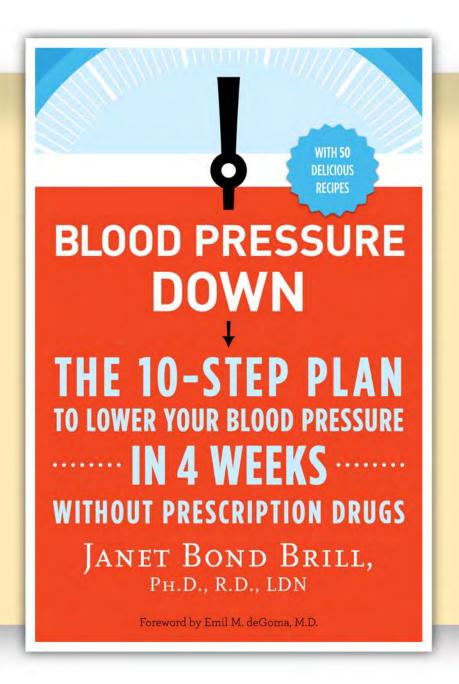
Janet Bond Brill, Ph.D., R.D., LDN

Foreword by Emil M. deGoma, M.D.

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www.crownpublishing.com

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Library of Congress Cataloging-in-Publication Data [CIP data]

ISBN 978-0-307-98635-1 eISBN 978-0-307-98636-8

Printed in the United States of America

Illustrations by Mia Alexandra Brill Cover design by Cover photography

10 9 8 7 6 5 4 3 2 1

First Edition

#### Blood Pressure Down: A Potent Natural Combination Therapy

Let food be thy medicine and medicine be thy food.

-Hippocrates

Reducing your blood pressure without drugs is easier than you think. The Blood Pressure Down plan is a combination approach of losing a little bit of weight, eating six types of foods, and exercising, developed from my extensive research on the best way to naturally reduce blood pressure. The plan works because it harnesses the specific blood-pressure-lowering potential of several simple diet and lifestyle manipulations. The combination of these is far more effective than a single food or exercise. Why? Each component has been scientifically proven to lower blood pressure to a different degree. Remember, with abnormal high blood pressure, every millimeter counts—for every 20 mm Hg increase in systolic blood pressure number above normal, there is an approximate doubling of risk for heart attack and stroke. Each component of the plan tackles your high blood pressure from a different angle; together, this potent natural combination therapy can lower blood pressure as much as

most single prescriptions. In the next section, you will learn about the therapeutic blood-pressure-lowering lifestyle strategies, then put them all into action simultaneously, providing you with the safest and most effective natural method to get your blood pressure down.

## COMBINATION LIFESTYLE THERAPY FOR OPTIMAL BLOOD PRESSURE MANAGEMENT

#### Your Life Is in Your Lifestyle

Treatment for all types of high blood pressure is classified as either lifestyle or pharmacotherapy. This book is about *lifestyle therapy*, the specific nondrug, natural modifications known to be the cornerstone of treatment for high blood pressure. As you have learned, lifestyle therapy should always be used first and foremost to prevent and treat high blood pressure.<sup>2</sup> Read on to get a better picture of the lifestyle modifications that you will combine to attain and maintain lifelong blood pressure control.

#### What Is Combination Lifestyle Therapy?

Combination lifestyle therapy is a hybrid of diet and exercise modifications for lowering blood pressure. There are varying opinions on the best combination. The U.S. government,<sup>3,4</sup> the American Heart Association,<sup>5</sup> the Canadian government,<sup>6</sup> and the British Hypertension Society<sup>7</sup> each have their own guidelines, as you can see in the table below. Each of the six modifiable lifestyle factors listed here has been proven to significantly reduce blood pressure. This might seem overwhelming, but don't worry! I just want you to see how much evidence there is for all of these lifestyle modifications. In my plan I've put them all together for you, to multiply the blood-pressure-lowering power of each one.



## DIET WORKS AS WELL AS DRUGS IN LOWERING BLOOD PRESSURE

Is a blood-pressure-lowering diet as powerful as a starting dose of a blood-pressure-lowering prescription drug? The answer is a resounding yes! In 1995 the NHLBI funded a landmark study named the Dietary Approaches to Stop Hypertension, or DASH trial, which found that what you eat (or don't eat) can profoundly affect your blood pressure numbers. The DASH trial provided the first convincing scientific evidence that a nonpharmaceutical lifestyle treatment could significantly reduce blood pressure. The study illustrated that even when body weight and sodium intake were constant, dietary intervention alone significantly lowers both systolic and diastolic numbers by an average of 11.4 and 5.5 mm Hg in those with diagnosed high blood pressure and by 3.5 and 2.1 mm Hg in normal study participants. These drops are similar to those achieved by blood-pressure-lowering medication, showing that the simple daily combination of certain foods can be just as powerful as a blood pressure drug in getting your Blood Pressure Down.

Sources: Sacks FM, Obarzanek E, Windhauser MM, et al, and the DASH Investigators. Rationale and design of the Dietary Approaches to Stop Hypertension Trial (DASH): a multi-center controlled feeding study of dietary patterns to lower blood pressure. *Ann Epidemiol* 1995;5(2):108–118; Appel L, Moore TJ, Obarzanek E, et al, for the DASH Collaborative Research Group. A clinical trial of the effects of dietary patterns on blood pressure. *N Eng J Med* 1997;336:1117–1124.

## Additional Scientific Support for the Efficacy of Natural Combination Therapy

Our strategy of piling on different lifestyle strategies to magnify the combined effect has been scientifically proven. For example, the ENCORE (Exercise and Nutrition Interventions for Cardiovascular Health) study tested the effects of three natural lifestyle therapies: nutrition, weight loss, and exercise. The ENCORE study was



Table 1. A Comparison of Lifestyle Recommendations Proven to Effectively Lower Blood pressure

Recommendation	JNC 7 <sup>3</sup>	NHLBI⁴	AHA <sup>5</sup>	CHEP <sup>6</sup>	BHS <sup>7</sup>
	Maintain normal body weight (BMI 18.5-24.9)	Maintain normal body weight for adults (BMI 18.5-24.9 kg/m²)	For overweight and obese individuals, lose weight, aiming for a BMI < 25 kg; for nonoverweight individuals, maintain a desirable body weight	Maintain a healthy body weight (BMI 18.5–24.9) and waist circumference (smaller than 102 cm for men and smaller than 88 cm for women)	Maintain ideal body weight and a BMI of 20-25
Adopt a DASH-type dietary pattern	Consume a diet rich in fruits, vegetables, and low-fat dairy products, with a reduced content of saturated fat and total fat	Consume a diet rich in fruits, vegetables, and low-fat dairy products, with a reduced content of saturated and total fat (DASH eating plan)	Consume a diet rich in fruits, vegetables (8–10 servings per day), low-fat dairy products (2–3 servings per day), and reduced in saturated fat and cholesterol	Follow a diet that is reduced in saturated fat and cholesterol, one that emphasizes fruits, vegetables, and low-fat dairy products, dietary and soluble fiber, whole grains, and protein from plant sources	Consume a diet rich in fruits, vegetables, and low-fat dairy products, with reduced content of saturated and total fat
Reduce sodium intake	Reduce dietary sodium intake to no more than 2.4 g/day	Reduce dietary sodium intake to no more than 2.4 g/day	Lower salt (sodium chloride) intake as much as possible, ideally to 1.5 g/day of sodium	Restrict dietary sodium to less than 2,300 mg/day 1,500 mg to 2,300 mg/day in hypertensive patients)	Reduce dietary sodium intake to < 2.4 g/day

Increase potassium intake	I	Maintain adequate intake of dietary potassium (> 3500 mg/d)	Increase potassium intake to 4.7 g/d, which is also the amount provided in DASH-type diets	I	I
Limit alcohol intake	Limit consumption to no more than 2 drinks per day (1 oz or 30 mL alcohol [e.g., 24 oz beer, 10 oz wine, or 3 oz 80-proof whiskey] in most men and no more than 1 drink per day in women and lighter-weight persons	Limit alcohol consumption to no more than 1 oz (30 mL) alcohol (e.g., 24 oz beer, 10 oz wine, or 2 oz 100-proof whiskey) per day in most men and to no more than 0.5 oz alcohol per day in women and lighter-weight persons	For those who drink, consume ≤ 2 alcoholic drinks per day (men) and ≤ 1 alcoholic drink per day (women)	Limit alcohol consumption to no more than 14 units per week in men or 9 units per week in women	Men ≤ 21 units per week; women ≤ 14 units per week ethanol; in the UK, a unit of alcohol is defined as 10 ml (about 8 g)
Engage in regular aerobic exercise	Regular aerobic physical activity such as brisk walking (at least 30 minutes per day, most days of the week)	Engage in regular aerobic physical activity, such as brisk walking, at least 30 minutes per day, most days of the week	I	Perform 30 to 60 minutes of aerobic exercise 4 to 7 days per week	Engage in regular aerobic physical activity, such as brisk walking, for at least 30 minutes most days

a randomized clinical trial (RCT), the gold standard of scientific research or experiment, which randomly places subjects by chance into study groups. The RCT is one of the simplest and most powerful tools in clinical research, because it allows for establishing a cause-and-effect relationship between the intervention and the outcome. In the ENCORE RCT, 144 overweight and obese unmedicated people with prehypertension or stage 1 high blood pressure were randomly assigned to one of three groups for a period of four months: the DASH diet alone, DASH combined with a weight management program (a weekly cognitive-behavioral therapy session plus a program of walking, jogging, or biking for thirty minutes three times a week), or a control group (instructed to follow their usual eating and exercise routine).

The main outcome was a significant reduction of blood pressure in all groups, but the combination treatment was clearly the most powerful. The control group lowered their blood pressure by 3.4 mm Hg (systolic) and 3.8 mm Hg (diastolic), and the DASH diet alone group lowered blood pressure by 11.2 mm Hg (systolic) and 7.5 mm Hg (diastolic). By comparison, the combination group following the DASH diet plus weight loss lowered their blood pressure by a whopping 16.1 mm Hg (systolic) and 9.9 mm Hg (diastolic); their average weight loss was five pounds per month. (Why the control group showed a small but significant drop in pressure despite no intervention is not clear. It may have been indicative of a placebo effect or their "usual" diet and exercise habits.) What is crystal clear from this landmark study, however, is the value of combining exercise, weight loss, and diet to reduce blood pressure. Weight loss, exercise and a DASH diet produced an additional 5/2 mm Hg drop in pressure beyond the DASH diet alone!

Another RCT divided fifty-one sedentary overweight middleaged men into two groups. One followed their usual diet; the other followed a reduced calorie diet.<sup>9</sup> Each group was then further subdivided into a program of either light exercise (stretching and cycling against zero resistance) or vigorous exercise (high-intensity cycling three times a week). After four months, the dieters lost an average of twenty-one pounds, and blood pressure was significantly lowered in the weight-loss-plus-exercise groups, by an average of 8.5 mm Hg systolic and 6.0 mm Hg diastolic. However, the vigorous exercise group showed a greater reduction in blood pressure. The conclusion from the study was that the synergy of diet plus exercise is far more effective in reducing blood pressure than either on its own.

## Reducing Blood Pressure and Cutting Prescription Drug Use in the Elderly

Getting on in age and worried about your escalating blood pressure and the side effects of all that medication? Then you will be interested to learn about the TONE (Trial of Nonpharmacologic Interventions in the Elderly) study, which analyzed the synergistic effect of losing weight and cutting sodium in almost one thousand people ages sixty to eighty, who had high blood pressure and were taking a single prescription drug to treat it.<sup>10</sup> Study participants were randomized to one of three lifestyle interventions (sodium reduction, weight loss, or a combination of both) or to a control group (no intervention). The sodium groups reduced their sodium intake to less than 1,800 mg/day, and the weight loss subjects were asked to achieve and maintain at least a ten-pound weight loss. The results? When compared to the control group, over twenty-nine months the sodium-reduction group lowered their need for antihypertensive medications by 31 percent, the weight loss group by 36 percent, and the combination by a whopping 53 percent!

Interestingly, the combined group was the most successful in keeping their blood pressure under control after discontinuing medication. The study's author concluded that a combination of modest lifestyle changes can help elderly Americans become less dependent on antihypertensive medication.



## The Big Guns for Fighting Blood Pressure: Millimeter by Millimeter

As you can see, there's no shortage of proof that natural combination therapy works. The prestigious groups of doctors and scientists of the government's JNC 7 committee have outlined approximately how many millimeters each of the top lifestyle therapies lowers systolic blood pressure (the top number):<sup>11</sup>

- 1. **Losing weight** can lower blood pressure up to 20 millimeters
- 2. Adopting a DASH-style diet rich in fruits, vegetables. and low-fat dairy can lower blood pressure up to 14 millimeters
- 3. Cutting dietary sodium to less than 2,400 mg/day can lower blood pressure up to 8 millimeters
- 4. Exercising thirty minutes a day, most days of the week, can lower blood pressure up to 9 millimeters
- Limiting alcohol consumption to one drink a day for women and two for men can lower blood pressure up to 4 millimeters

You can be sure that each of these well-established strategies is included in the Blood Pressure Down plan—along with several additional less well-known but equally effective lifestyle steps. Used together, these strategies form a lifestyle "attack" on different systems related to blood pressure regulation, with a much greater impact than any single therapy.

#### THE BLOOD PRESSURE DOWN PLAN

You now know that high blood pressure is usually silent but always treacherous and that you must get it down. If you are not ready to get on the prescription bandwagon—or if you want to get

#### DANGER: KIDS WITH HIGH BLOOD PRESSURE

High blood pressure is not just an adult disease. Sad to say, more and more children and adolescents are being diagnosed. This may be because of the childhood obesity crisis. A recent study followed more than eleven hundred children, averaging ten years of age, for five years. Researchers found that overweight kids were three times more likely to develop high blood pressure. It may be unimaginable to think that children could get heart attacks or strokes, but these are very real side effects of high blood pressure. Getting our kids exercising and eating healthfully will help them lose weight and lower their blood pressure, as well as help reduce the epidemic of type 2 diabetes—improving their health now and helping them become healthier adults.

Source: Eckert GJ, DiMeglio LA, Yu Z, Jung J, Pratt JH. Intensified effect of adiposity on blood pressure in overweight and obese children. *Hypertens* 2011;58:818–824.

off—you can rest assured that the combination of natural, safe, and highly effective lifestyle methods outlined in these pages will get your blood pressure under control. Blood Pressure Down takes six individual blood-pressure-lowering foods—all scientifically shown to independently reduce blood pressure—and combines them on a daily basis with a manageable amount of weight loss, salt restriction, exercise, and relaxation. Combining all these proven blood-pressure-lowering strategies is as effective as combining several types of blood-pressure-lowering drugs. All the ingredients are available at your local supermarket and are no more dangerous, exotic, or expensive than bananas, yogurt, or walking.

Each step in the plan lowers your blood pressure several millimeters in a slightly different way, so the combination approach is substantially stronger than a single therapeutic treatment. Going on the "mineral diet" I prescribe (high amounts of potassium,

magnesium, and calcium-rich foods), for example, lowers pressure by balancing the electrolytes in your bloodstream. Getting in daily aerobic exercise such as brisk walking, on the other hand, lowers pressure by boosting internal production of nitric oxide, a natural substance that acts like Valium for endothelial cells, relaxing and widening the arteries. A daily dose of both the minerals and exercise cuts pressure much more than either in isolation. In this way, all ten steps of the Blood Pressure Down plan work together to pack a very powerful punch in lowering blood pressure.

#### Ready to Bring Your Blood Pressure Down?

The next ten chapters provide a set of simple, healthful food and exercise prescriptions that give safe and measurable blood-pressure-lowering results in as little as four weeks. If you're at high risk of developing high blood pressure or already have the disease, these ten lifestyle changes can literally save your life. Think of all ten steps as the equivalent of a daily prescription pill—it's essential to do your best to get them all in. You'll keep track of your progress using the Ten-Step Daily Checklist located in Appendix 3, the same tool my patients use. Read on to begin with Step 1 of the daily checklist and start now to get your blood pressure down!

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