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Chapter 1

What Is DASH?

Hypertension, or high blood pressure, affects one in three of the world's adult citizens, including nearly half of all U.S. adults, and contributes to millions of deaths from heart disease, stroke, and kidney failure every year. Although medication is usually very effective, in many cases hypertension can be prevented or lessened simply by choosing a diet and lifestyle that promote good health. The Dietary Approaches to Stop Hypertension (DASH) diet was developed as a holistic, yet medically sound, method to lower blood pressure safely while also promoting wellness and vitality of the whole body. In short: The DASH diet uses food as part of the medical treatment.

This chapter shines a spotlight on what makes DASH so powerful for heart health — and good health in general — and what makes it different from all the other diets out there. It also explains how to find true success with DASH: by making a commitment to changing your current lifestyle for a healthier one that incorporates DASH dietary guidelines and increased activity. Change may seem intimidating, but DASH makes it easy and accessible, incorporating foods you already know and love to help you achieve your goals and live your life to the fullest. There's no time like the present to throw on some sneakers, grab a healthy snack, and jump right in!

Understanding the DASH Difference

Twenty-five years ago, if you were diagnosed with hypertension, your doctor may have simply sent you on your way with a prescription and advice to cut back on salt. However, over the past two decades, the medical community's understanding of the effects that diet, body weight, and lifestyle have on blood pressure has expanded tremendously. Studies by physicians, scientists, dietitians, and others have concluded that controlling blood pressure is about far more than just the salt. The following sections trace the history of DASH and explain why DASH is more than just another trendy diet.

Exploring the origins of DASH

The acronym *DASH* comes from a landmark 1997 *clinical trial* (a well-controlled human research study) that tested the effects of specific types of food on blood pressure. Instead of just telling people with hypertension what to avoid, the study sought to gauge the effects on blood pressure of a variety of readily available, inexpensive whole foods known to support good health.



REMEMBER

Study participants following the DASH diet experienced impressive results: By eating a diet rich in fruits, vegetables, whole grains, and low-fat dairy foods and low in saturated fat, they reduced their blood pressure just as much as if they had taken a single prescription drug. The drop in blood pressure was evident within two weeks, even though the participants were on the DASH diet plan for eight weeks. DASH researchers estimated that the improvement in blood pressure could mean a 15 percent drop in heart attack risk and as much as a 27 percent reduction in stroke risk.



TECHNICAL
STUFF

It's worth noting that study participants who followed the DASH diet minus the dairy also reduced their blood pressure, but the decrease was less. That's why including low-fat dairy is recommended for maximum effectiveness.

Having confirmed that healthy and delicious food could lower blood pressure just as effectively as a pharmaceutical drug, the DASH researchers next turned their attention to salt. The study, known as DASH-Sodium, found that by cutting salt to about 1,500 milligrams daily, blood pressure improved even more than with DASH alone. In fact, even a little reduction in salt made an important difference in blood pressure. The effect was seen in people with borderline high blood pressure, as well as in those with true hypertension.

For a deeper dive into the science behind the DASH study, see Chapter 2. Less interested in the science than in finding advice on how to create a healthy diet plan that works for you? We help you out in Chapter 4.

CONVINCING REASONS TO TRY THE DASH DIET

Hypertension, or high blood pressure, is an incredibly widespread problem, affecting people of all ages, shapes, sizes, colors, and nationalities. If you don't have hypertension, chances are your parents, siblings, or friends do. And you may too one day because the prevalence of hypertension increases with age. If you live long enough, you have a 90 percent probability of hypertension.

Although some cases of hypertension are due purely to genetics (as we explain in Chapter 6), many times the problem can be prevented or lessened by simple lifestyle changes. That means you may have more control than you realize. Around the world, access to fast food, processed food, and convenience food, along with an increasingly sedentary way of life, means that more people are becoming hypertensive every year. In fact, it's estimated that if things keep going along the way they are, a jaw-dropping 60 percent of adults around the world will be hypertensive.

Many medications exist that are effective at treating hypertension, and the average person with hypertension requires at least two to three of these medications to really get the problem under control. But due to costs, side effects, and complications, many people never achieve normal blood pressure numbers. Why not save yourself some hassle and prevent hypertension in the first place by following the DASH diet?

Recognizing why DASH isn't just another trendy diet

It seems like every year a new diet book comes out, full of promises and complete with enthusiastic endorsements from the celebrity-du-jour. Is the DASH diet really any different? Absolutely, 100 percent. No doubt about it.

DASH is science-based. It was developed based on reams of scientific research that identified certain foods as being especially beneficial for blood pressure. The DASH team put their highly educated heads together and came up with a diet that incorporated those foods into an easy-to-follow, inexpensive program that they believed would really make a difference. And make a difference it does. Not only can DASH help lower blood pressure, but it can also help with weight loss (thanks to eating more fiber-rich whole grains, fruits, and vegetables), reduce diabetes risk (thanks to complex carbohydrates), and more. Head to Part 2 for an in-depth look at all the benefits DASH provides for your health.

A HEALTHY EATING PLAN FOR THE WHOLE FAMILY

DASH isn't just for adults who have or are at risk for hypertension. It's an approach to eating that's healthy for most children as well. Why talk about DASH and kids? Consider the fact that since the 1970s, American children between the ages of 6 and 11 are now consuming

- Triple the amount of salty snacks
- Nearly double the amount of candy
- More than 40 percent fewer vegetables
- Half the amount of milk
- Twice the amount of soda

It's no wonder that more than one-third of U.S. kids are overweight or obese and are at risk for developing a condition known as the *metabolic syndrome* (the result of a cluster of risk factors including obesity, high blood pressure, abnormal blood lipid levels, and elevated blood sugar), which substantially raises the risk of heart disease, stroke, and diabetes. The good news is that the DASH diet has the potential to help kids who are heading down this road. For instance, a British study of girls with metabolic syndrome found that after spending just six weeks on DASH, blood pressure and insulin levels were improved compared to those who weren't assigned to DASH. Another study that simply tracked the diets of young girls over the course of ten years reported that those whose diets simply included two or more servings of dairy and at least three servings of fruits and vegetables daily were one-third less likely to have high blood pressure by the time they hit their late teens.

When it comes to kids, it's up to parents to provide healthy food options and keep unhealthy snacks to a minimum. DASH keeps it simple by giving you a structure that you can follow to put together nutritious meals for your family. And of course, in Part 4 of this book, we share loads of great recipes that can help you get started. As always, get your pediatrician's or family doctor's approval before jumping right in.



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Scientists know that sometimes an idea can make perfect sense on paper and fail miserably when put to the test. Without a scientific study that randomly assigns individuals to one diet or another, with as many variables as possible controlled by the research team (what scientists call a *randomized, controlled trial*), you're just going on an assumption. You also need to set your goals ahead of time and then conduct the study in such a way that it's as unbiased as possible. Next, when it's all said and done, you need to do a detailed statistical analysis and then tidy up the

whole mess into a neat and obsessively thorough report. Finally, you submit your work for review by other well-respected and uninvolved scientists (what's known as *peer review*). This meticulous attention to detail and strict scientific method are what set DASH apart from so many other diet plans.

DASH: A Dietary Prescription for a Healthier Lifestyle

Unlike some medical prescriptions, DASH works for just about anyone. It includes enough variety and room for modification so that most people, even those with dietary restrictions, can make it their own. You just have to follow some simple dietary guidelines and commit to making positive lifestyle changes, as we explain in the next sections.

The basic dietary guidelines

Every type of food included in DASH has a purpose, as you can see from the following list:



TIP

» **Whole grains give you plenty of fiber, potassium, magnesium, and antioxidants, all of which help support the health of your cardiovascular system and lower your blood pressure.**

A world of difference exists between refined flour and whole-grain flour because after the rough part of the grain is stripped away, most of the nutrients are gone as well.

If you need to steer clear of gluten (a protein abundant in wheat, barley, and rye products), you have a variety of interesting whole-grain options to choose from, including quinoa, millet, rice, and oats.

» **Fruits and vegetables offer blood pressure-friendly nutrients galore, including a wide range of vitamins and antioxidants, plus potassium and fiber.** Although whole grains also provide a similar list of healthy elements, the variety supplied by fruits and vegetables is very different. Your body is an incredibly complex system, so you can't rely on just one category of food to give you everything you need.

» **Low-fat dairy foods have been strongly linked to a lower risk for hypertension because they're rich in vitamin D, calcium, magnesium, and potassium; high in protein; and low in saturated fat and calories.** There's also good evidence that dairy foods may reduce the likelihood of stroke, a common complication of high blood pressure.



If you're lactose intolerant, check with your doctor and see whether a lactase supplement may help you enjoy these healthy foods. We provide more pointers on how dairy can fit into your DASH diet in Chapter 11.

- » **Lean meats, fish, and poultry provide plenty of protein to build a healthy and strong body, while limiting your exposure to saturated fats and calories.** Although DASH hasn't been specifically tested in vegetarians, it's easily adaptable, especially because animal protein is a proportionately smaller part of the plan than it is in a typical Western diet. If you're a vegetarian, try substituting soy products or other high-protein, vegetable-based options. Of course, nuts and seeds (see the next bullet) also supply some protein. In Chapter 21, we whip up some terrific meat-free recipes to help get you started.
- » **Nuts, seeds, and legumes provide heart-friendly, plant-based protein, along with healthy fats, fiber, and magnesium.** Peanuts and soy nuts are, technically speaking, members of the legume family, which also includes beans, chickpeas (found in hummus), and lentils. Although the calories can add up quickly, especially if you're a nut lover, they come from healthy fats and are a much better choice than typical snack-food fare.

DASH is important not only for the foods it includes but also for those it limits:

- » **Fats and oils are limited but not out of bounds in the DASH diet.** Since the time that DASH was developed in the 1990s, more recent research has confirmed the benefit of foods rich in omega-3 fats, such as oily fish, as well as monounsaturated fats like olive oil. A second set of studies known as *Omni-Heart* confirmed that switching out a small portion (about 10 percent) of carb-based calories and replacing them with healthy monounsaturated fats can make DASH even more effective, as long as the calories remain the same.
- » **Sugary and high-fat treats aren't forbidden on DASH, but they're kept to a minimum.** If you're like us, you probably need a little indulgence from time to time. Severely restrictive diets aren't always realistic and may even cause you to jump ship, giving up on a healthy eating plan altogether. DASH allows you a little leeway to enjoy the foods you love, but don't be surprised if you find that, after a few days on DASH, you feel so good that snack foods no longer hold the same appeal.

Table 1-1 shows the quantities you should eat of different food groups when following DASH and examples from each group. If what you see here looks a bit basic or maybe kind of daunting, don't despair. We share more than 40 great-tasting recipes in Part 4 that really make the DASH diet come alive. (*Note:* The servings listed in Table 1-1 are based on a 2,000-calorie diet. Some people need more calories than that; others need fewer calories.)

TABLE 1-1**The DASH Diet (Based on 2,000 Calories/Day)**

Type of Food	Number of Servings for a 2,000-Calorie Diet	Example Serving Sizes
Grains and grain products	6–8 per day	1 slice bread, 1 cup dry cereal, ½ cup cooked cereal, rice, or pasta
Fruits	4–5 per day	10 grapes, ½ grapefruit, 1 small banana, 2 tablespoons raisins, 1 medium apple
Vegetables	4–5 per day	1 cup raw, ½ cup cooked
Low-fat or nonfat dairy products	2–3 per day	1 cup milk or yogurt, 1 ounce cheese
Lean meats, fish, poultry	2 or fewer per day	3–4 ounces cooked per day
Nuts, seeds, legumes	4–5 per week	1/3 cup nuts, 2 tablespoons nut butter, 2 tablespoons seeds
Fats and oils	3–4 per day	1 teaspoon margarine, butter, or oil; 2 tablespoons salad dressing
High-fat/high-sugar extras	5 or fewer per week	½ cup sorbet or frozen yogurt, 1 “fun-size” candy bar, 8 pieces of gummy-type candy, 1 tablespoon jam; 1 ounce dark chocolate (70 percent to 85 percent cocoa)

That’s the DASH diet in a nutshell; for a deeper look at DASH nutrition, see Chapter 5.

**REMEMBER**

By choosing DASH, you’ll achieve better blood pressure deliciously. And with such a wide range of foods to choose from, it’s easy to see how you can tailor DASH to your personal taste.

The most powerful lifestyle changes

Just as you need a balanced blend of healthy foods to achieve good health and better blood pressure, your body also requires balance in other areas. Throughout this book, we help you cultivate healthy habits to support the vitality, energy, and overall well-being that you’re craving. Although making changes to your daily routine may seem intimidating at first, it’s surprisingly simple. You just have to take it one step at a time.

We tell you much more about the way lifestyle impacts your health in Chapter 16, but to get started, check out the following sections to get a feel for the simple things you can do or change that may help reduce your risk for hypertension, heart disease, stroke, and a wide array of other conditions.

Moving more

Being active daily is essential for a healthy lifestyle. Before you start calculating the cost of a gym membership and fancy workout clothes, it's important to understand that getting more daily activity can be as simple as putting on your sneakers and walking out the door. Combat the modern sedentary lifestyle by looking for simple ways to add daily activity: taking a ten-minute walk break, choosing to use the stairs, walking where you may normally drive, sweeping the porch more often, or committing to housework or yard maintenance.

While you're busy getting more active, why not add in some exercise? It's nearly impossible to be healthy without regular exercise. By exercising two and a half hours each week, you'll lower your blood pressure, reduce your stress level, burn some calories, and cut your risk of heart disease, stroke, and dementia a well-worth-it 30 percent. If hitting the gym's your thing, go for it! If you're a weight lifter, just make sure you get a good balance of aerobic exercise along with the resistance training. Yoga and Pilates are also terrific ways to take care of your body and encourage serenity of mind, but adding in some walking, running, biking, or swimming to your weekly routine helps keep your heart even stronger.



REMEMBER

Exercise isn't just for the young and fit. Just about anyone can do it, and you can usually find something that works with any limitations you may have. Remember, though, that anytime you're beginning a new exercise regimen or bumping up the intensity of a current routine, you need to check in with your doctor to be sure your plan makes good health sense for you.



TIP

Because exercise can lower blood pressure, blood sugar, and cholesterol, you want to keep track of your numbers when you get started. If you have hypertension, high cholesterol, or diabetes, don't be surprised if, eventually, you don't require as much medication to keep the problem under control.

Cutting back on caffeine, alcohol, and smoking

DASH doesn't put caffeine off-limits, and for many people, a cup or two of tea or coffee is a great way to take a break and recharge. It turns out that these plant-based drinks actually offer a boost of healthy antioxidants along with the caffeine, but don't go overboard. (Caffeinated sodas and energy drinks may give you a similar jolt, but they don't have the same health benefits.) Doctors used to shake their fingers at people with a coffee habit, but the research on coffee and tea strongly suggests that they have health benefits when consumed in moderation — generally considered 3 cups or fewer per day.



REMEMBER

Although coffee can cause a temporary bump in blood pressure, it doesn't appear to cause hypertension. Of course, some people can't take a sip of tea or coffee without experiencing heart flutters or heartburn, and if that's you we're talking about, then it's best to avoid a cup of brew or switch to decaf.

Whether or not to drink alcohol is a personal decision. Any form of alcohol enjoyed in moderation appears to offer health benefits for the heart and brain, although red wine is especially beneficial. “Moderation” means one drink for women and one to two for men. More than that and you’re more likely to develop high blood pressure, especially if you binge drink. Additional downsides of overindulging in alcohol include alcoholism, a higher risk of cancer, poor decisions made under the influence (perhaps including extra calories from junk food), and of course weight gain from the extra calories.



WARNING

We’d be remiss if we didn’t touch on smoking. If you don’t already know that smoking is bad for your health, we have to assume that you’ve been in hibernation for the past 50 years. Not only does it raise your risk for numerous particularly nasty forms of cancer, but it also drastically raises your chances of developing heart attacks, aneurysms, blocked leg arteries, and strokes. It may not affect your blood pressure much, but it can hurt you in just about every other way. Quitting isn’t easy, but it’s well worth the effort.

Reducing stress

Not all stress is created equal. There’s good stress, which you have control over, and then there’s the bad kind, which leaves you feeling overwhelmed and powerless. Guess which form of stress is harmful? Of course, it’s the second type. Sometimes you can get away from this sort of stress, but sometimes it’s just a part of your work or family life.



TIP

Stress can seem like so much a part of everyday life that it becomes hard to recognize, but the truth is that it can affect your health. Perhaps you don’t realize it, but when you’re stressed you may be more apt to reach for a cookie or a soda rather than an apple or a handful of nuts. Sometimes these cravings mean that you’re searching for an instant energy boost, but processed foods only serve to cause a vicious cycle of craving and hunger. Keep these foods out of reach and you may find that you’re better able to manage the stress that comes your way.

Not surprisingly, stress can also have a direct influence on your blood pressure. By leaving an unhappy job or a difficult relationship, you may suddenly find that your blood pressure is much easier to manage. Of course, sometimes you can’t, or don’t want to, get away from the situation that’s causing the problem, but many times there’s something about it that you can change for the better. Don’t give up on yourself just because it seems difficult. Your health depends on you taking good care of yourself.

Stress can also cause poor sleep, which itself may lead to high blood pressure and cravings for unhealthy food. Getting to the root of the problem may help you sleep better.



TIP

When dealing with stress above and beyond the daily annoyances, it often helps to enlist the services of a well-qualified counselor. By doing so, you'll find it much easier to get your life back on track, and the healthier choices may begin to come more naturally.

Preparing for Success with DASH

By choosing DASH, you're affirming a commitment to good health and vitality. Unlike many other diet plans, DASH doesn't explicitly tell you what to do; there are no gimmicks, supplements, or products that you need to make it work. Instead, DASH offers a range of options that you can use to build a diet that works specifically for you. Though this framework may seem a little intimidating at first, you'll find that such flexibility is exactly what makes DASH so useful and so doable. Choices abound in the real world, and DASH gives you a structure that helps you make healthy sense of the options.

Choosing foods that support your health

Does the word *diet* make you think of dreary, boring meals; deprivation with nothing to look forward to; and miserable nights spent alone avoiding social situations where food may appear? We promise that's not the life you'll be living when you adopt DASH. Although the word *diet* is often used in conjunction with DASH, we're here to show you how DASH is different and how it can be part of a healthy, vibrant, and delicious way of eating and living.

One of the really wonderful things about DASH is that it gives you such broad leeway to make your own personal choices about the foods that you eat. Studies of DASH have incorporated the plan into menus all over the world, including the United States, Asia, Europe, South America, and the Middle East. The thing really works!

For many people, the number of servings of fruits and vegetables is an eye-opener. If you follow DASH, you'll naturally start to peruse the produce aisles with more curiosity, and you'll probably begin to take some chances, bringing home unfamiliar produce to try at home. You can think of it as a great adventure!



REMEMBER

The DASH diet is lower in sodium than a typical Western diet, which may take some adjustment for you. Be patient with your taste buds as you cut back on the salt because it may take them several weeks to adapt. If you cut back slowly, it won't seem like you're giving something up, and you'll probably find that you're enjoying the natural flavors of foods so much more than ever before.



TIP

Sweets and other simple carbs may be a bit harder to renounce, but, just like salt, you'll eventually realize that, first of all, many packaged sweets usually don't taste as good as advertised, and second, you'll actually feel better if you limit portions to just a small taste of something homemade and really good. Plus, as you cut back on sweets, you'll crave them less often.

We share additional guidance on adopting a DASH way of life in Chapter 11, as well as a 14-day meal plan you can follow. For help setting up your kitchen for your new cooking adventures, see Chapter 13. Or for advice on following DASH when dining out or traveling, see Chapter 15.

PUTTING FOOD BEFORE SUPPLEMENTS

It's tempting to think that rather than having to bother with healthy eating, you may be able to get your nutrition from a pill or a powder. It often seems all *Willy Wonka and the Chocolate Factory*, but like those hapless kiddos who fell victim to the magical "three-course meal in a stick of gum," it just doesn't work out the way you'd think it should. You may be surprised to know that the world of supplements is largely unregulated, so manufacturers face little accountability.

Over the years, trends have come and gone for a wide variety of supplements, including vitamin E, high dose folic acid, selenium, L-arginine, and others. When put to the scientific test, these supplements and their counter-mates have often had unintended consequences, including a greater risk for certain cancers, diabetes, and heart disease. Other supplements used for weight loss and energy may put you at risk for heart rhythm disturbances, heart attacks, and strokes. And while a multivitamin probably won't hurt you, there's little evidence that it will do you much good, either.

Whole foods are very different from supplements. Their natural goodness is balanced in a neat package created by Mother Nature, with literally dozens of nutrients in a single bite. Your body was designed to use foods in their natural form. By overwhelming your system with massive doses of a single substance, you may be setting yourself up for unintended consequences.

Of course, there are exceptions. For instance, many people are deficient in vitamin D, and in these cases, a supplement can be helpful. The same may apply to iron and certain B-vitamins. Your doctor can test you to see whether your levels are low. Other supplements, like fiber, can help with constipation and even lower cholesterol. And sometimes a protein shake can be a reasonable replacement for a single meal. But before you take a product's claim on faith, check in with your doctor or a registered dietitian.

Creating lifestyle changes that stick

Hypertension, diabetes, heart disease, obesity. All these conditions, and more, can be impacted by your lifestyle, and they can weigh you down if you allow them to. Fortunately, you don't have to. Making positive changes in the way you eat and the way you choose to spend your time can have a lasting impact on your health and the overall quality of your life. No matter what challenges you may have in your life, never give up or give in. Life is too precious.



TIP

Don't think of DASH as "going on a diet." That implies a temporary situation. What you're after here is making a lifestyle change that you can live with — one that doesn't make you feel deprived or drained, but rather, one that you can celebrate! Our recipes and tips throughout this book will help you accomplish this, and you'll find lots of tips in Chapters 4, 11, and 16.

By following the DASH diet, you'll be able to create a plan that will support your health and empower you with more energy. Consequently, exercise will seem less daunting, and you'll find it easier to change other habits that have been keeping you back.



REMEMBER

Track your successes and forgive your slip-ups. Reach out for support from professionals or a friend when you need encouragement or focus. Making healthy changes may seem difficult at first, but by taking it one step at a time, you'll find that you can accomplish a great deal.

A DASH of Caution

Although DASH is a fabulous plan that promotes better health and well-being for most people, it's not for everyone.

One advantage of DASH is the fact that it's high in potassium. For most people, that helps their kidneys regulate blood pressure more efficiently. However, people with advanced kidney disease may need to limit the potassium in their diet.



WARNING

If you have a chronic medical condition or take prescription potassium, it's important to discuss any major changes in the foods you choose with your doctor. In some cases, you may need more careful monitoring of blood work, and in other situations, it may be possible to cut back on the potassium pills when you switch to DASH.

Of course, if you have high blood pressure, DASH may lower it enough that your medications will need to be adjusted. That's a really good side effect, but not one that you want to overlook. When you commit to DASH, it's important to monitor your blood pressure closely, especially in the first one to two months and whenever you find yourself losing weight. Let your doctor know of any changes. Doctors love it when patients can ditch a pill or two.

It goes without saying that if you're gluten intolerant, you need to modify a bit, but there are plenty of tantalizing, gluten-free, healthy grains, including buckwheat, quinoa, millet, and wild rice.

If you're lactose intolerant, yogurt and other dairy products may not be right for you (although kefir, a cultured milk product low in lactose and high in healthy probiotics, may be an option). Consider calcium-fortified soy milk, almond milk, and other such products.



WARNING

If you have a disease or disorder that requires medical nutrition therapy (MNT), you need to consult with a registered dietitian/nutritionist (RDN) for individual nutrition counseling prior to starting the DASH diet. Talk to your doctor about a referral or find an RDN near you by checking out “Find a Registered Dietitian” at www.eatright.org.

Finally, despite the fact that some people eat way too much salt, others need more salt, and not everyone needs to cut back. Competitive athletes and people working outdoors in the heat are the obvious examples. A small minority of people suffer from low blood pressure, and in those cases, extra salt is often the treatment of choice.

The great thing about DASH is that it can be easily adapted for a wide variety of tastes and conditions. Because everybody is different, check with your doctor before jumping in with both feet, and let her be a partner in your path to wellness.

