Your Guide to Lowering Blood Pressure

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Heart, Lung, and Blood Institute

Your Guide to Lowering Blood Pressure

What Are High Blood Pressure and Prehypertension?

Blood pressure is the force of blood against the walls of arteries. Blood pressure rises and falls throughout the day. When blood pressure stays elevated over time, it's called *high blood pressure.*

The medical term for high blood pressure is *hypertension*. High blood pressure is dangerous because it makes the heart work too hard and contributes to atherosclerosis (hardening of the arteries). It increases the risk of heart disease (see box 1) and stroke, which are the first- and third-leading causes of death among Americans. High blood pressure also can result in other conditions, such as congestive heart failure, kidney disease, and blindness.

box 1

Risk Factors for Heart Disease

Risk factors are conditions or behaviors that increase your chances of developing a disease. When you have more than one risk factor for heart disease, your risk of developing heart disease greatly multiplies. So if you have high blood pressure, you need to take action. Fortunately, you can control most heart disease risk factors.

Risk factors you can control:

- High blood pressure
- Abnormal cholesterol
- Tobacco use
- Diabetes
- Overweight
- Physical inactivity

Risk factors beyond your control:

- Age (55 or older for men; 65 or older for women)
- Family history of early heart disease (having a father or brother diagnosed with heart disease before age 55 or having a mother or sister diagnosed before age 65)

A blood pressure level of 140/90 mmHg or higher is considered high. About two-thirds of people over age 65 have high blood pressure. If your blood pressure is between 120/80 mmHg and 139/89 mmHg, then you have *prehypertension*. This means that you don't have high blood pressure now but are likely to develop it in the future unless you adopt the healthy lifestyle changes described in this brochure. (See box 2.)

People who do not have high blood pressure at age 55 face a 90 percent chance of developing it during their lifetimes. So high blood pressure is a condition that *most people will have at some point in their lives.*

Both numbers in a blood pressure test are important, but for people who are age 50 or older, systolic pressure gives the most accurate diagnosis of high blood pressure. Systolic pressure is the top number in a blood pressure reading. It is high if it is 140 mmHg or above.

box 2

Blood Pressure Levels for Adults*

Category	Systolic† (mmHg)‡		Diastolic† (mmHg)‡	Result
Normal	less than 120	*and*	less than 80	Good for you!
Prehypertension	120–139	*or*	80–89	Your blood pressure could be a problem. Make changes in what you eat and drink, be physically active, and lose extra weight. If you also have diabetes, see your doctor.
Hypertension	140 or higher	*or*	90 or higher	You have high blood pressure. Ask your doctor or nurse how to control it.

* For adults ages 18 and older who are not on medicine for high blood pressure and do not have a short-term serious illness. *Source: The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure;* NIH Publication No. 03-5230, National High Blood Pressure Education Program, May 2003.

† If systolic and diastolic pressures fall into different categories, overall status is the higher category.

‡ Millimeters of mercury.

Hypertension can *almost always* be prevented, so these steps are very important even if you do not have high blood pressure.

- Maintain a healthy weight.
- Be physically active.
- Follow a healthy eating plan.
- Eat foods with less sodium (salt).
- Drink alcohol only in moderation.
- Take prescribed drugs as directed.

How Can You Prevent or Control High Blood Pressure?

If you have high blood pressure, you and your health care provider need to work together as a team to reduce it. The two of you need to agree on your blood pressure goal. Together, you should come up with a plan and timetable for reaching your goal.

Blood pressure is usually measured in millimeters of mercury (mmHg) and is recorded as two numbers—systolic pressure (as the heart beats) "over" diastolic pressure (as the heart relaxes between beats)—for example, 130/80 mmHg. Ask your doctor to write down for you your blood pressure numbers and your blood pressure goal level.

Monitoring your blood pressure at home between visits to your doctor can be helpful. You also may want to bring a family member with you when you visit your doctor. Having a family member who knows that you have high blood pressure and who understands what you need to do to lower your blood pressure often makes it easier to make the changes that will help you reach your goal.

The steps listed in this brochure will help lower your blood pressure. If you have normal blood pressure or prehypertension, following these steps will help prevent you from developing high blood pressure. If you have high blood pressure, following these steps will help you control your blood pressure.

This brochure is designed to help you adopt a healthier lifestyle and remember to take prescribed blood pressure-lowering drugs. Following the steps described will help you prevent and control high blood pressure. While you read them, think to yourself . . . *"I Can Do It!"*

Lower Your Blood Pressure by Aiming for a Healthy Weight

Finding *YOUR* Target Weight

Being overweight or obese increases your risk of developing high blood pressure. In fact, your blood pressure rises as your body weight increases. Losing even 10 pounds can lower your blood pressure—and losing weight has the biggest effect on those who are overweight and already have hypertension.

Overweight and obesity are also risk factors for heart disease. And being overweight or obese increases your chances of developing high blood cholesterol and diabetes—two more risk factors for heart disease.

Two key measures are used to determine if someone is overweight or obese. These are body mass index, or BMI, and waist circumference.

BMI is a measure of your weight relative to your height. It gives an approximation of total body fat—and that's what increases the risk of diseases that are related to being overweight.

But BMI alone does not determine risk. For example, in someone who is very muscular or who has swelling from fluid retention (called edema), BMI may overestimate body fat. BMI may underestimate body fat in older persons or those losing muscle.

That's why waist measurement is often checked as well. Another reason is that too much body fat in the stomach area also increases disease risk. A waist measurement of more than 35 inches in women and more than 40 inches in men is considered high.

Check the chart in box 3 for your approximate BMI value. Check box 4 to see if you are at a normal weight, overweight, or obese. Overweight is defined as a BMI of 25 to 29.9; obesity is defined as a BMI equal to or greater than 30.

If you fall in the obese range according to the guidelines in box 4, you are at increased risk for heart disease and need to lose weight. You also should lose weight if you are overweight and have two or more heart disease risk factors. (See box 1.) If you fall in the normal weight range or are overweight but do not need to lose pounds, you still should be careful not to gain weight.

box 3

Body Mass Index

Here is a chart for men and women that gives BMI for various heights and weights.* To use the chart, find your height in the left-hand column labeled Height. Move across to your body weight. The number at the top of the column is the BMI for your height and weight.

BMI	21	22	23	24	25	26	27	28	29	30	31
Height (feet and inches)	Body Weight (pounds)										
4′ 10″	100	105	110	115	119	124	129	134	138	143	148
5′ 0″	107	112	118	123	128	133	138	143	148	153	158
5′ 2″	115	120	126	131	136	142	147	153	158	164	169
5′ 4″	122	128	134	140	145	151	157	163	169	174	180
5′ 6″	130	136	142	148	155	161	167	173	179	186	192
5′ 8″	138	144	151	158	164	171	177	184	190	197	203
5′ 10″	146	153	160	167	174	181	188	195	202	209	216
6′ 0″	154	162	169	177	184	191	199	206	213	221	228
6′ 2″	163	171	179	186	194	202	210	218	225	233	241
6′ 4″	172	180	189	197	205	213	221	230	238	246	254

* Weight is measured with underwear but no shoes.

If you need to lose weight, it's important to do so slowly. Lose no more than 1/2 pound to 2 pounds a week. Begin with a goal of losing 10 percent of your current weight. This is the healthiest way to lose weight and offers the best chance of long-term success.

There's no magic formula for weight loss. You have to eat fewer calories than you use up in daily activities. Just how many calories you burn daily depends on factors such as your body size and how physically active you are. (See box 5.)

One pound equals 3,500 calories. So, to lose 1 pound a week, you need to eat 500 calories a day less or burn 500 calories a day more than you usually do. It's best to work out some combination of both eating less and being more physically active.

box 4

What Does Your BMI Mean?

Category	BMI	Result
Normal weight	18.5–24.9	Good for you! Try not to gain weight.
Overweight	25–29.9	Do not gain any weight, especially if your waist measurement is high. You need to lose weight if you have two or more risk factors for heart disease. (See box 1.)
Obese	30 or greater	You need to lose weight. Lose weight slowly—about 1/2 pound to 2 pounds a week. See your doctor or a registered dietitian if you need help.

Source: Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report; NIH Publication No. 98-4083, National Heart, Lung, and Blood Institute, in cooperation with the National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, June 1998.

And remember to be aware of serving sizes. It's not only what you eat that adds calories, but also how much.

As you lose weight, be sure to follow a healthy eating plan that includes a variety of foods. A good plan to follow is the one given in box 6. Some tips to make the plan lower in calories appear in box 8.

Lower Your Blood Pressure by Being Active

Being physically active is one of the most important things you can do to prevent or control high blood pressure. It also helps to reduce your risk of heart disease.

It doesn't take a lot of effort to become physically active. All you need is 30 minutes of moderate-level physical activity on most days of the week. Examples of such activities are brisk walking, bicycling, raking leaves, and gardening. For more examples, see box 5.

box 5

Examples of Moderate-Level Physical Activities

Common Chores	Sporting Activities
Washing and waxing a car for 45–60 minutes	Playing volleyball for 45–60 minutes
Washing windows or floors for 45–60 minutes	Playing touch football for 45 minutes
Gardening for 30–45 minutes	Walking 2 miles in 30 minutes (1 mile in 15 minutes)
Wheeling self in wheelchair for 30–40 minutes	Shooting baskets for 30 minutes
Pushing a stroller 1 1/2 miles in 30 minutes	Bicycling 5 miles in 30 minutes
Raking leaves for 30 minutes	Dancing fast (social) for 30 minutes
Shoveling snow for 15 minutes	Performing water aerobics for 30 minutes
Stair walking for 15 minutes	Swimming laps for 20 minutes
	Playing basketball for 15–20 minutes
	Jumping rope for 15 minutes
	Running 1 1/2 miles in 15 minutes (1 mile in 10 minutes)

You can even divide the 30 minutes into shorter periods of at least 10 minutes each. For instance: Use stairs instead of an elevator, get off a bus one or two stops early, or park your car at the far end of the lot at work. If you already engage in 30 minutes of moderate-level physical activity a day, you can get added benefits by doing more. Engage in a moderate-level activity for a longer period each day or engage in a more vigorous activity.

Most people don't need to see a doctor before they start a moderate-level physical activity. You should check first with your doctor if you have heart trouble or have had a heart attack, if you're over age 50 and are not used to moderate-level physical activity, if you have a family history of heart disease at an early age, or if you have any other serious health problem.

Lower Your Blood Pressure by Eating Right

What you eat affects your chances of getting high blood pressure. A healthy eating plan can both reduce the risk of developing high blood pressure and lower a blood pressure that is already too high.

For an overall eating plan, consider DASH, which stands for "Dietary Approaches to Stop Hypertension." You can reduce your blood pressure by eating foods that are low in saturated fat, total fat, and cholesterol, and high in fruits, vegetables, and lowfat dairy foods. The DASH eating plan includes whole grains, poultry, fish, and nuts, and has low amounts of fats, red meats, sweets, and sugared beverages. It is also high in potassium, calcium, and magnesium, as well as protein and fiber. Eating foods lower in salt and sodium also can reduce blood pressure.

Box 6 gives the servings and food groups for the DASH eating plan. The number of servings that is right for you may vary, depending on your caloric need.

The DASH eating plan has more daily servings of fruits, vegetables, and grains than you may be used to eating. Those foods are high in fiber, and eating more of them may temporarily cause bloating and diarrhea. To get used to the DASH eating plan, gradually increase your servings of fruits, vegetables, and grains. Box 7 offers some tips on how to adopt the DASH eating plan.

A good way to change to the DASH eating plan is to keep a diary of your current eating habits. Write down what you eat, how much, when, and why. Note whether you snack on high-fat foods while watching television or if you skip breakfast and eat a big lunch. Do this for several days. You'll be able to see where you can start making changes.

If you're trying to lose weight, you should choose an eating plan that is lower in calories. You can still use the DASH eating plan, but follow it at a lower calorie level. (See box 8.) Again, a food diary can be helpful. It can tell you if there are certain times that you eat but aren't really hungry or when you can substitute low-calorie foods for high-calorie foods.

box 6

The DASH Eating Plan

The DASH eating plan shown below is based on **2,000 calories a day.** The number of daily servings in a food group may vary from those listed, depending upon your caloric needs.

Food Group	Daily Servings (except as noted)	Serving Sizes
Grains and grain products	7–8	1 slice bread 1 cup ready-to-eat cereal* 1/2 cup cooked rice, pasta, or cereal
Vegetables	4–5	1 cup raw leafy vegetable 1/2 cup cooked vegetable 6 ounces vegetable juice
Fruits	4–5	1 medium fruit 1/4 cup dried fruit 1/2 cup fresh, frozen, or canned fruit 6 ounces fruit juice
Lowfat or fat free dairy foods	2–3	8 ounces milk 1 cup yogurt 1 1/2 ounces cheese
Lean meats, poultry, and fish	2 or fewer	3 ounces cooked lean meat, skinless poultry, or fish
Nuts, seeds, and dry beans	4–5 per week	1/3 cup or 1 1/2 ounces nuts 1 tablespoon or 1/2 ounce seeds 1/2 cup cooked dry beans
Fats and oils†	2–3	1 teaspoon soft margarine 1 tablespoon lowfat mayonnaise 2 tablespoons light salad dressing 1 teaspoon vegetable oil
Sweets	5 per week	1 tablespoon sugar 1 tablespoon jelly or jam 1/2 ounce jelly beans 8 ounces lemonade

* Serving sizes vary between 1/2 cup and 1 1/4 cups. Check the product's nutrition label.

† Fat content changes serving counts for fats and oils: For example, 1 tablespoon of regular salad dressing equals 1 serving, 1 tablespoon of lowfat salad dressing equals 1/2 serving, and 1 tablespoon of fat free salad dressing equals 0 servings.

box 7

Tips on Switching to the DASH Eating Plan

- Change gradually. Add a vegetable or fruit serving at lunch and dinner.
- Use only half the butter or margarine you do now.
- If you have trouble digesting dairy products, try lactase enzyme pills or drops—they're available at drugstores and groceries. Or buy lactose-free milk or milk with lactase enzyme added to it.
- Get added nutrients such as the B vitamins by choosing whole grain foods, including whole wheat bread or whole grain cereals.
- Spread out the servings. Have two servings of fruits and/or vegetables at each meal, or add fruits as snacks.
- Treat meat as one part of the meal, instead of the focus. Try casseroles, pasta, and stir-fry dishes. Have two or more meatless meals a week.
- Use fruits or lowfat foods as desserts and snacks.

box 8

How To Lose Weight on the DASH Eating Plan

The DASH eating plan was not designed to promote weight loss. But it is rich in low-calorie foods such as fruits and vegetables. You can make it lower in calories by replacing high-calorie foods with more fruits and vegetables—and that also will make it easier for you to reach your DASH eating plan goals. Here are some examples:

To increase fruits:

- Eat a medium apple instead of four shortbread cookies. You'll save 80 calories.
- Eat 1/4 cup of dried apricots instead of a 2-ounce bag of pork rinds. You'll save 230 calories.

To increase vegetables:

- Have a hamburger that's 3 ounces instead of 6 ounces. Add a 1/2 cup serving of carrots and a 1/2 cup serving of spinach. You'll save more than 200 calories.
- Instead of 5 ounces of chicken, have a stir fry with 2 ounces of chicken and 1 1/2 cups of raw vegetables. Use a small amount of vegetable oil. You'll save 50 calories.

To increase lowfat or fat free dairy products:

- Have a 1/2 cup serving of lowfat frozen yogurt instead of a 1 1/2-ounce milk chocolate bar. You'll save about 110 calories.

And don't forget these calorie-saving tips:

- Use lowfat or fat free condiments, such as fat free salad dressings.
- Eat smaller portions—cut back gradually.
- Choose lowfat or fat free dairy products to reduce total fat intake.
- Use food labels to compare fat content in packaged foods. Items marked lowfat or fat free are not always lower in calories than their regular versions. See box 11 on how to read and compare food labels.
- Limit foods with lots of added sugar, such as pies, flavored yogurts, candy bars, ice cream, sherbet, regular soft drinks, and fruit drinks.
- Eat fruits canned in their own juice.
- Snack on fruit, vegetable sticks, unbuttered and unsalted popcorn, or bread sticks.
- Drink water or club soda.

Spice It Up and Use Less Sodium

Use More Spices and Less Salt

An important part of healthy eating is choosing foods that are low in salt (sodium chloride) and other forms of sodium. Using less sodium is key to keeping blood pressure at a healthy level.

Most Americans use more salt and sodium than they need. Some people, such as African Americans and the elderly, are especially sensitive to salt and sodium and should be particularly careful about how much they consume.

Most Americans should consume no more than 2.4 grams (2,400 milligrams) of sodium a day. That equals 6 grams (about 1 teaspoon) of table salt a day. For someone with high blood pressure, the doctor may advise less. The 6 grams includes *all* salt and sodium consumed, including that used in cooking and at the table.

Before trying salt substitutes, you should check with your doctor, especially if you have high blood pressure. These contain potassium chloride and may be harmful for those with certain medical conditions.

Box 9 offers some tips on how to choose and prepare foods that are low in salt and sodium.

box 9

Tips To Reduce Salt and Sodium

- Buy fresh, plain frozen, or canned "with no salt added" vegetables.
- Use fresh poultry, fish, and lean meat, rather than canned or processed types.
- Use herbs, spices, and salt-free seasoning blends in cooking and at the table.
- Cook rice, pasta, and hot cereal without salt. Cut back on instant or flavored rice, pasta, and cereal mixes, which usually have added salt.
- Choose "convenience" foods that are low in sodium. Cut back on frozen dinners, pizza, packaged mixes, canned soups or broths, and salad dressings—these often have a lot of sodium.
- Rinse canned foods, such as tuna, to remove some sodium.
- When available, buy low- or reduced-sodium or no-salt-added versions of foods—see box 11 for guidance on how to use food labels.
- Choose ready-to-eat breakfast cereals that are low in sodium.

With herbs, spices, garlic, and onions, you can make your food spicy without salt and sodium. There's no reason why eating less sodium should make your food any less delicious! See box 10 for some great ideas on using spices.

box 10

Tips for Using Herbs and Spices

Herbs and Spices	Use in
Basil	Soups and salads, vegetables, fish, and meats
Cinnamon	Salads, vegetables, breads, and snacks
Chili Powder	Soups, salads, vegetables, and fish
Cloves	Soups, salads, and vegetables
Dill Weed and Dill Seed	Fish, soups, salads, and vegetables
Ginger	Soups, salads, vegetables, and meats
Marjoram	Soups, salads, vegetables, beef, fish, and chicken
Nutmeg	Vegetables, meats, and snacks
Oregano	Soups, salads, vegetables, meats, and snacks
Parsley	Salads, vegetables, fish, and meats
Rosemary	Salads, vegetables, fish, and meats
Sage	Soups, salads, vegetables, meats, and chicken
Thyme	Salads, vegetables, fish, and chicken

Experiment with these and other herbs and spices. To start, use small amounts to find out if you like them.

Shopping for Foods That Will Help You Lower Your Blood Pressure

By paying close attention to food labels when you shop, you can consume less sodium. Sodium is found naturally in many foods. But processed foods account for most of the salt and sodium that Americans consume. Processed foods that are high in salt include regular canned vegetables and soups, frozen dinners, lunchmeats, instant and ready-to-eat cereals, and salty chips and other snacks.

Use food labels to help you choose products that are low in sodium. Box 11 shows you how to read and compare food labels.

As you read food labels, you may be surprised that many foods contain sodium, including baking soda, soy sauce, monosodium glutamate (MSG), seasoned salts, and some antacids.

box 11

Compare Labels

Food labels can help you choose items lower in sodium, as well as calories, saturated fat, total fat, and cholesterol. The label tells you:

FROZEN PEAS

Nutrition Facts

Serving Size: 1/2 cup
Servings Per Container: about 3

Amount Per Serving	
Calories: 60	Calories from Fat: 0
	% Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 125mg	5%
Total Carbohydrate 11g	4%
Dietary Fiber 6g	22%
Sugars 5g	
Protein 5g	

Vitamin A	15%	• Vitamin C	30%
Calcium	0%	• Iron	6%

* Percent Daily Values are based on a 2,000 calorie diet.

Amount per serving
Nutrient amounts are provided for one serving. If you eat more or less than a serving, add or subtract amounts. For example, if you eat 1 cup of peas, you need to double the nutrient amounts on the label.

Number of servings
There may be more than one serving in the package, so be sure to check serving size.

Nutrients
You'll find the milligrams of sodium in one serving.

Percent daily value
Percent daily value helps you compare products and tells you if the food is high or low in sodium. Choose products with the lowest percent daily value for sodium.

CANNED PEAS

Nutrition Facts

Serving Size: 1/2 cup
Servings Per Container: about 3

Amount Per Serving	
Calories: 60	Calories from Fat: 0
	% Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 380mg	16%
Total Carbohydrate 12g	4%
Dietary Fiber 3g	14%
Sugars 4g	
Protein 4g	

Vitamin A	6%	• Vitamin C	10%
Calcium	2%	• Iron	8%

* Percent Daily Values are based on a 2,000 calorie diet

? Which product is lower in sodium?

Answer: The frozen peas. The canned peas have three times more sodium than the frozen peas.

Easy on the Alcohol

Drinking too much alcohol can raise blood pressure. It also can harm the liver, brain, and heart. Alcoholic drinks also contain calories, which matters if you are trying to lose weight.

If you drink alcoholic beverages, drink only a moderate amount—one drink a day for women, two drinks a day for men.

What counts as a drink?

- 12 ounces of beer (regular or light, 150 calories),
- 5 ounces of wine (100 calories), or
- 1 1/2 ounces of 80-proof whiskey (100 calories).

Manage Your Blood Pressure Drugs

If you have high blood pressure, the lifestyle habits noted above may not lower your blood pressure enough. If they don't, you'll need to take drugs.

Even if you need drugs, you still must make the lifestyle changes. Doing so will help your drugs work better and may reduce how much of them you need.

There are many drugs available to lower blood pressure. They work in various ways. *Many people need to take two or more drugs to bring their blood pressure down to a healthy level.*

See box 12 for a rundown on the main types of drugs and how they work.

box 12

Blood Pressure Drugs

Drug Category	How They Work
Diuretics	These are sometimes called "water pills" because they work in the kidney and flush excess water and sodium from the body through urine.
Beta-blockers	These reduce nerve impulses to the heart and blood vessels. This makes the heart beat less often and with less force. Blood pressure drops, and the heart works less hard.
Angiotensin converting enzyme inhibitors	These prevent the formation of a hormone called angiotensin II, which normally causes blood vessels to narrow. The blood vessels relax, and pressure goes down.
Angiotensin antagonists	These shield blood vessels from angiotensin II. As a result, the blood vessels open wider, and pressure goes down.
Calcium channel blockers	These keep calcium from entering the muscle cells of the heart and blood vessels. Blood vessels relax, and pressure goes down.
Alpha-blockers	These reduce nerve impulses to blood vessels, allowing blood to pass more easily.
Alpha-beta-blockers	These work the same way as alpha-blockers but also slow the heartbeat, as beta-blockers do.
Nervous system inhibitors	These relax blood vessels by controlling nerve impulses.
Vasodilators	These directly open blood vessels by relaxing the muscle in the vessel walls.

When you start on a drug, work with your doctor to get the right drug and dose level for you. If you have side effects, tell your doctor so the drugs can be adjusted. If you're worried about cost, tell your doctor or pharmacist—there may be a less expensive drug or a generic form that you can use instead.

It's important that you take your drugs as prescribed. That can prevent a heart attack, stroke, and congestive heart failure, which is a serious condition in which the heart cannot pump as much blood as the body needs.

It's easy to forget to take medicines. But just like putting your socks on in the morning and brushing your teeth, taking your medicine can become part of your daily routine. See box 13 for some tips that will help you remember to take your blood pressure drugs.

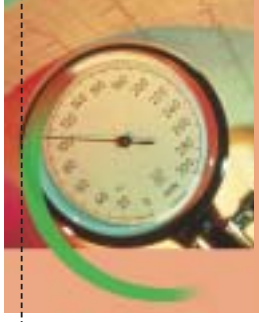
box 13

Tips To Help You Remember To Take Your Blood Pressure Drugs

- Put a favorite picture of yourself or a loved one on the refrigerator with a note that says, "Remember To Take Your High Blood Pressure Drugs."
- Keep your high blood pressure drugs on the nightstand next to your side of the bed.
- Take your high blood pressure drugs right after you brush your teeth, and keep them with your toothbrush as a reminder.
- Put "sticky" notes in visible places to remind yourself to take your high blood pressure drugs. You can put notes on the refrigerator, on the bathroom mirror, or on the front door.
- Set up a buddy system with a friend who also is on daily medication and arrange to call each other every day with a reminder to "take your blood pressure drugs."
- Ask your child or grandchild to call you every day with a quick reminder. It's a great way to stay in touch, and little ones love to help the grown-ups.
- Place your drugs in a weekly pillbox, available at most pharmacies.
- If you have a personal computer, program a start-up reminder to take your high blood pressure drugs, or sign up with a free service that will send you a reminder e-mail every day.
- Remember to refill your prescription. Each time you pick up a refill, make a note on your calendar to order and pick up the next refill 1 week before the medication is due to run out.

You can be taking drugs and still not have your blood pressure under control. Everyone—and older Americans in particular—must be careful to keep his or her blood pressure below 140/90 mmHg. If your blood pressure is higher than that, talk with your doctor about adjusting your drugs or making lifestyle changes to bring your blood pressure down.

Some over-the-counter drugs, such as arthritis and pain drugs, and dietary supplements, such as ephedra, ma haung, and bitter orange, can raise your blood pressure. Be sure to tell your doctor about any nonprescription drugs that you're taking and ask whether they may make it harder for you to bring your blood pressure under control.



Action Items To Help Lower Your Blood Pressure

Remember—You *Can* Do It!

1 Maintain a healthy weight

- Check with your health care provider to see if you need to lose weight.
- If you do, lose weight slowly using a healthy eating plan and engaging in physical activity.

2 Be physically active

- Engage in physical activity for a total of 30 minutes on most days of the week.
- Combine everyday chores with moderate-level sporting activities, such as walking, to achieve your physical activity goals.

3 Follow a healthy eating plan

- Set up a healthy eating plan with foods low in saturated fat, total fat, and cholesterol, and high in fruits, vegetables, and lowfat dairy foods such as the DASH eating plan.
- Write down everything that you eat and drink in a food diary. Note areas that are successful or need improvement.
- If you are trying to lose weight, choose an eating plan that is lower in calories.

4 Reduce sodium in your diet

- Choose foods that are low in salt and other forms of sodium.
- Use spices, garlic, and onions to add flavor to your meals without adding more sodium.

5 Drink alcohol only in moderation

- In addition to raising blood pressure, too much alcohol can add unneeded calories to your diet.
- If you drink alcoholic beverages, have only a moderate amount—one drink a day for women, two drinks a day for men.

6 Take prescribed drugs as directed

- If you need drugs to help lower your blood pressure, you still must follow the lifestyle changes mentioned above.
- Use notes and other reminders to help you remember to take your drugs. Ask your family to help you with reminder phone calls and messages.

Questions To Ask Your Doctor If You Have High Blood Pressure

- What is my blood pressure reading in numbers?
- What is my goal blood pressure?
- Is my blood pressure under adequate control?
- Is my systolic pressure too high (over 140)?
- What would be a healthy weight for me?
- Is there a diet to help me lose weight (if I need to) and lower my blood pressure?
- Is there a recommended healthy eating plan I should follow to help lower my blood pressure (if I don't need to lose weight)?
- Is it safe for me to start doing regular physical activity?
- What is the name of my blood pressure medication? Is that the brand name or the generic name?
- What are the possible side effects of my medication? (Be sure the doctor knows about any allergies you have and any other medications you are taking, including over-the-counter drugs, vitamins, and dietary supplements.)
- What time of day should I take my blood pressure medicine?
- Should I take it with food?
- Are there any foods, beverages, or dietary supplements I should avoid when taking this medicine?
- What should I do if I forget to take my blood pressure medicine at the recommended time? Should I take it as soon as I remember or should I wait until the next dosage is due?

Your Guide to Lowering Blood Pressure

A patient guide, containing:

- Clear explanations of high blood pressure and prehypertension
- Step-by-step guidance on how to prevent or control high blood pressure
- An Action Item page that you can cut out and place where you can see it daily to help you remember that you can manage your blood pressure

For More Information

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