



High Blood Pressure Guide

How to lower your blood pressure
and improve your health.

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Understanding High Blood Pressure

What is blood pressure and how is it measured?

Blood pressure is the force of blood pushing against the walls of your blood vessels as it moves from your heart to other parts of your body. It is measured using a cuff placed around the upper arm.

Blood pressure readings have two numbers—systolic and diastolic—measured in units called millimeters of mercury (mmHg). For example, a blood pressure number would be written 118/78 mmHg. Here is what the numbers represent:

118
78

Top number (**systolic**)—the pressure **when** the heart beats

Bottom number (**diastolic**)—the pressure **between** heart beats



How are you diagnosed with high blood pressure?

Your blood pressure normally rises and falls during the day. But if it stays high for a long time, you might have the medical condition of high blood pressure, also known as hypertension.

High blood pressure doesn't usually cause symptoms. Most people don't know they have it until they go to their healthcare provider for a routine visit. To confirm if you have high blood pressure, your healthcare provider will take multiple blood pressure measurements over time.

BLOOD PRESSURE CATEGORIES

There are different categories of blood pressure diagnosis, from normal to an emergency. Depending on what category your blood pressure is in, your treatment plan may vary.

Category	Systolic (Top) mmHg		Diastolic (Bottom) mmHg
Normal	Lower than 120	and	Lower than 80
Elevated	120-129	and	Lower than 80
High Blood Pressure (Hypertension) Stage 1	130-139	or	80-89
High Blood Pressure (Hypertension) Stage 2	140 or higher	or	90 or higher
Hypertension Crisis or Emergency If your blood pressure is in this range, call your healthcare team.	Higher than 180	and/or	Higher than 120

What increases your risk for high blood pressure?

Experts don't fully understand the exact cause of high blood pressure. However, we know some of the factors that can put you at greater risk for developing high blood pressure. These risk factors include:

Lifestyle Factors

Things we do in our daily lives can increase risk for high blood pressure.

- Unhealthy diet, especially a diet high in sodium
- Not enough physical activity
- Smoking
- Being overweight
- Drinking too much alcohol
- Stress

Health Conditions

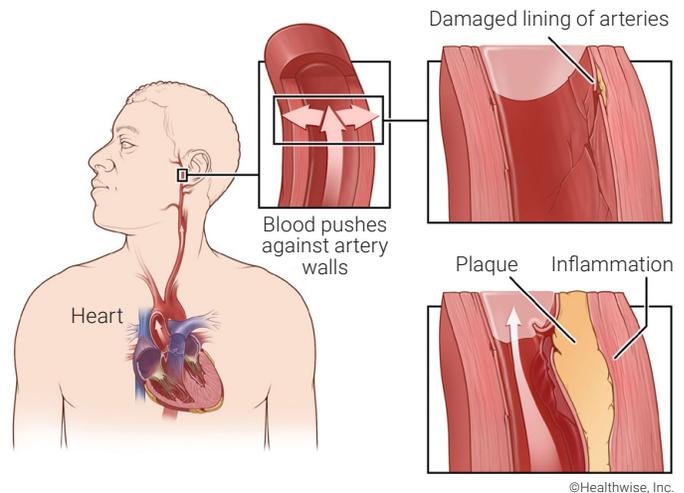
Certain health conditions may increase your risk for high blood pressure.

- Diabetes
- High cholesterol
- Obstructive sleep apnea

Physical and Inherited Factors

Who we are as individuals and our inherited genes can put us at risk for high blood pressure.

- Family history of high blood pressure.
- Age—your risk increases the older you get.
- Race—African Americans tend to develop high blood pressure more than people of any other racial background in the United States.
- Gender—men are at higher risk than women before age 45. After age 65, women are at higher risk than men.
- Having chronic kidney disease.



How does it affect your body?

When blood pressure is high, blood flows through your arteries with too much force. This damages the walls of your arteries. Plaque starts to build up in your arteries—making them narrower and stiffer. Blood can't flow through them as easily.

This lack of blood flow starts to damage some of your organs. It happens slowly over time. You can't tell that it's happening, because you don't feel anything.

High blood pressure can lead to health problems such as:

- Eye damage
- Heart attack
- Heart failure
- Kidney failure
- Peripheral arterial disease
- Stroke

How is high blood pressure treated?

Your treatment goal will be to lower your blood pressure. This will help you prevent health problems related to high blood pressure.

You will have a “goal blood pressure range” to help you know how much you need to lower your blood pressure by. How you lower it (your treatment plan) will depend on how high your blood pressure is and if you have other health problems, such as diabetes.



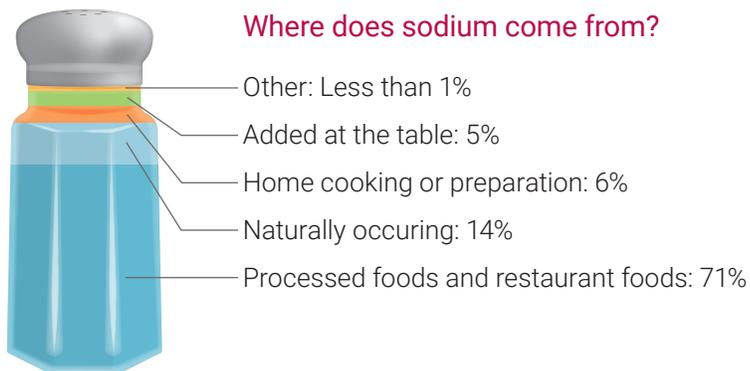
Lifestyle Changes to Lower Blood Pressure

Lifestyle changes will be part of your treatment plan for high blood pressure. Making lifestyle changes can enhance your quality of life and reduce your risk of heart disease, stroke, kidney disease and more.

LOWER YOUR SODIUM

If you need to reduce how much sodium you consume, you are not alone. It's recommended you consume:

- Less than 2,300 milligrams (mg) of sodium per day if you have normal blood pressure.
- Less than 1,500 milligrams (mg) of sodium per day if you have high blood pressure, or if recommended by your healthcare provider.



Where is sodium found?

Sodium is a naturally occurring mineral that the body needs. But too much sodium can cause high blood pressure.

Most of the sodium we eat comes from processed and prepared foods. Salt is a familiar source of sodium, but it is not the same as sodium. Foods that may not taste salty can still have a lot of sodium.

Processed foods generally come in packages and have a nutrition label. They include snack foods, frozen meals, hot dogs and lunch meat, sugary beverages, and baked goods. Some processed foods are better than others—baby carrots or unsalted nuts are “minimally” processed, nutritious snacks.

Prepared foods are generally any foods prepared in advance and ready to eat. They can be from restaurants or self-serve food bars. Prepared foods can also be packaged but meant to be eaten in a short time. Examples of prepared foods include premade soups, sushi, sandwiches or burritos.

Tips for reducing sodium

At home:

- Use less salt when cooking. To add flavor without adding sodium, try garlic, lemon juice, herbs, spices or seasoning blends with no salt added.
- Rinse canned foods such as beans, tuna and vegetables before eating.
- Make your own sauces and salad dressings.
- Limit mixes and instant foods such as Hamburger Helper™ or Rice-a-Roni®.

When eating out:

- Ask for a menu with nutrition information or ask your server for low-sodium options.
- Ask for your food to be prepared as plain as possible without salt. Ask for a side of vegetables or fruit. Order your salad with oil and vinegar on the side.
- Split a meal with a friend or family member.
- Limit takeout and fast food to an occasional treat.



Examples of high-sodium foods

Choosing low-sodium foods

Replace high-sodium foods that you may normally eat with lower-sodium alternatives.

	Choose	Limit or Avoid
Meals and Soups	Home-cooked meals and soups. Low-sodium canned soups.	Premade, frozen or restaurant meals. Regular (full-sodium) canned soups.
Meat, Poultry and Fish	Fresh or frozen meat, poultry and fish (check for added salt water or saline). Low-sodium canned products (rinse before eating).	Meat, poultry and fish that has been cured, smoked or spiced. Bacon, ham, sausage, hot dogs, corned beef, lunch meat and jerky. Regular (full-sodium) canned products.
Cheese	Swiss, ricotta and fresh mozzarella cheese. Cream cheese. Low-sodium cheese and cottage cheese.	Processed cheese. Cheese spreads, dips and sauces. Regular (full-sodium) cheese and cottage cheese.
Savory Snacks	Low-sodium or unsalted nuts, seeds, pretzels, chips or crackers. Homemade (not microwave) popcorn.	Salted nuts, seeds, pretzels, chips, crackers or microwave popcorn.
Grains	Plain, unseasoned rice, grains and pasta. Unflavored oatmeal. Puffed rice or shredded wheat cereal.	Bread and rolls. Instant hot cereals. Boxed baking mixes (waffles, pancakes, bread, cake). Croutons. Instant noodles. Rice or pasta mixes.
Vegetables	Canned or frozen vegetables without added sodium or sauces. Low-sodium tomato sauce and vegetable juice.	Relishes, olives and pickled vegetables. Boxed potato mixes. Canned and frozen vegetables. Regular (full-sodium) tomato sauce and vegetable juice.
Sauces, Dressing and Condiments	Homemade sauces and dressings. Vinegar, lemons, herbs or dry mustard. Low-sodium sauces, dressings and condiments.	Barbecue, teriyaki and steak sauce. Fish sauce. All soy sauce, including reduced-sodium. Gravy. Marinades. Regular (full-sodium) condiments such as ketchup, mustard, cocktail sauce and tartar sauce.
Seasonings	Fresh garlic and onion. Lemon juice and vinegar. Spices and herbs such as oregano, chili, cumin and basil. Low-sodium bouillon cubes. Salt-free seasoning blends.	Dried onion and garlic. Seasoned salt. MSG. Meat flavorings and tenderizers. Full-sodium bouillon cubes. Seasoning blends that contain salt.

Read food labels

Most packaged foods have a Nutrition Facts label. This will tell you how much sodium is in one serving of food.

1. Look at both the serving size and the sodium amount.

Food labels list the amount of sodium for each serving. The serving size is located at the top of the label, usually right under the “Nutrition Facts” title.

2. Check the serving size carefully.

A single serving is often very small. If you eat more than the serving size, you have eaten more sodium than is listed for one serving.

3. Multiple the amount of servings you eat by the sodium per serving.

For example:

- There are 160 mg of sodium in a 1-cup serving.
- If you eat two servings (2 cups), then you need to multiply 160 mg by 2.
- $160 \times 2 = 320$ mg of sodium you will be eating in two cups.

Choose foods with labels that read:

- **Salt and Sodium Free.** This means it has less than 5 mg per serving.
- **Very Low Sodium.** This means it has less than 35 mg per serving.
- **Low Sodium.** This means it has less than 140 mg per serving.

Nutrition Facts	
8 servings per container	
Serving size	1 cup (128g)
Amount per serving	
Calories	230
<small>% Daily Value*</small>	
Total Fat 8g	10%
Saturated Fat 1g	5%
<i>Trans Fat</i> 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 5g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 240mg	6%
<small>*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.</small>	

WATCH OUT!

Labels with the following words have less sodium than normal, but it is usually still too much.

- Reduced Sodium
- Light in Sodium or Lightly Salted
- No Salt Added or Unsalted

HEART-HEALTHY EATING

Healthy eating can help improve your health and prevent disease. It is never too late to start. Even small changes in what you eat now can make a big difference!

Eating Plans

Three eating plans are detailed in this guide. Which one you choose to follow depends on your personal preference. Before you start, talk to your healthcare team or dietitian to see which is best for you. You can personalize these eating plans to meet your needs.

- Dietary Approaches to Stopping Hypertension (DASH) Diet
- Mediterranean Diet
- Whole-Food, Plant-Based Diet



How to stick with your heart-healthy eating plan

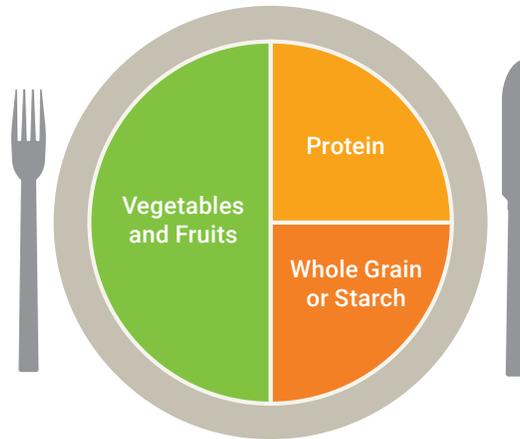
The key to success with a heart-healthy eating plan is to stick with it. The longer you follow it, the lower your risk of heart disease and stroke. At the same time, it can be tough to feel motivated by health benefits that you might not experience for some time. Remember that healthy eating is not about dieting.

Here are some tips to help you get started with heart-healthy eating and stick with it.

Think about what matters to you. Imagine that you've been following a heart-healthy eating plan for a few months. How would you feel about yourself and your health?

Think about what makes it hard to change. Most people feel unsure right before they make a change. Sometimes fear can be behind thoughts of "I won't like it" or "I don't have time." So take a minute to explore your thoughts.

Start with small changes. Make one or two changes at a time. As soon as you are used to those, make another one or two changes. Over time, making a number of small changes can add up and make a big difference in your health.



Tips for healthier eating

No matter what eating plan you choose, there are common best practices in healthy eating you can follow.

Rethink your plate.

Start by adding more foods to your plate that are full of nutrients. To get the right mix of foods, fill 1/2 your plate with vegetables and fruit, 1/4 with a healthy protein (such as beans, chicken or fish), and 1/4 with a whole grain or starchy vegetable (such as brown rice or a sweet potato).

Add more vegetables and fruits.

Enjoy plenty of fresh fruits and vegetables. Choose a rainbow of colors. Make fruits and vegetables a main ingredient in every meal. When choosing frozen or canned, stay away from added sauces, salt (sodium) or sugar.

Choose whole grains.

Not all grains are the same. At least half the servings of grains you eat each day should be whole grains. Enjoy whole-wheat pasta and bread, plus brown rice, barley, oatmeal, shredded-wheat cereal, or popcorn. Eat less of refined grains such as white rice and items made from white wheat (pastries, pasta or bread).

Choose healthier proteins.

Choose more lentils, beans, poultry, fish and nuts. When eating poultry, choose lean options and

remove skin. Eat red meat less often and in smaller portions. Try replacing meats with healthy plant proteins like beans or tofu. Enjoy a small handful of nuts as a snack.

Switch to low-fat or fat-free dairy.

Low-fat and fat-free dairy products have the same nutrients as full-fat dairy products but have fewer calories and less saturated fat (unhealthy fat). Try low-fat yogurt for breakfast with fresh fruit.

Cook healthier.

Cook with healthy oils instead of butter or lard. Choose olive, canola or avocado oils. Use herbs and spices instead of salt. Try baking, broiling or grilling in place of frying.

Eat less processed and prepared foods.

Try to eat more fresh foods instead of relying on processed foods. When you do choose processed foods, pick those with less sodium, fat and added sugars.

Make more meals at home. You will save money and eat healthier. Restaurant and fast foods often come in large portions and are high in unhealthy fats, salt or sugar.

Drink more water.

Stay hydrated with water instead of sugary drinks and alcohol. Keep a reusable water bottle with you for water on the go.

THE DASH EATING PLAN

The Dietary Approaches to Stop Hypertension (DASH) diet is a heart-healthy eating plan to reduce cholesterol and blood pressure. The DASH eating plan is rich in fruits, vegetables, whole grains, fish, poultry, beans, seeds and nuts. It limits sodium, added sugars, fats and red meats. Limit your sodium to no more than 2,300 mg per day. Your doctor may suggest you limit your sodium to no more than 1,500 mg per day for greater

results. Because the DASH diet contains many carbohydrates, you may need to change some of the recommended foods to low-carb alternatives if you have diabetes.

SERVINGS: The DASH eating plan recommends food servings based on how many calories you eat per day. Here are serving examples for a 2,000-calorie-a-day diet. Your calorie needs may differ based on your age, activity level and health goals.

FOOD GROUP	What to Choose	Daily Servings
 Vegetables	Fresh, frozen or canned without added sauces, sodium or sugar.	4 to 5 Serving = 1 cup raw leafy greens; 1/2 cup raw, cut-up or cooked vegetables; 1/2 cup vegetable juice
 Fruits	Fresh, frozen or canned without added sauces, sodium or sugar.	4 to 5 Serving = 1 medium fruit; 1/2 cup fresh, frozen or canned fruit; 1/4 cup dried fruit; 1/2 cup fruit juice
 Dairy	Fat-free or low-fat milk and milk products.	2 to 3 Serving = 1 cup milk or yogurt, 1 1/2 oz cheese
 Grains	Mostly whole grains.	6 to 8 Serving = 1/2 cup cooked rice, pasta or cereal; 1 cup dry cereal; 1 slice bread
 Eggs and Lean Meats	Fish, poultry, lean meats and eggs. Limit to 4 egg yolks per week.	6 or less Serving = 3 oz (about the size of a deck of cards) cooked meat, poultry or fish; 1 egg
 Fats and Oils	Vegetable oils (avocado, canola, corn, olive), soft margarines, low-fat dressings or mayonnaise.	2 to 3 Serving = 1 tsp oil or soft margarine, 1 Tbsp mayonnaise, 2 Tbsp salad dressing
 Sodium (Salt)	Limit sodium. Use herbs and spices instead.	2,300 mg (1 tsp salt daily to follow standard DASH diet) 1,500 mg (3/4 tsp daily for lower sodium DASH diet)
FOOD GROUP	What to Choose	Weekly Servings
 Legumes, Nuts and Seeds	Dried or canned legumes (beans, lentils and split peas) without added sauces, sodium or sugar. Unsalted nuts, nut butters and seeds.	4 to 5 Serving = 1/2 cup cooked legumes, 1/3 cup nuts, 2 Tbsp seeds or nut butter
 Sweets	Sweets that are low in fat, such as gelatin, sorbet, hard candy and fruit drinks.	5 or less Serving = 1 Tbsp sugar or jelly, 1/2 cup sorbet or gelatin, 1 cup lemonade

MEDITERRANEAN EATING PLAN

The Mediterranean diet is a heart-healthy eating plan based on the traditional foods and lifestyle of Mediterranean countries. The lifestyle embraces sharing meals with family and friends, enjoying limited red wine with meals, and being physically active. The diet is high in vegetables, fruits, fish, legumes, whole grains, beans, nuts and seeds. It emphasizes the use of healthy fats like olive oils. The diet limits meat, cheese and sweets.

SERVINGS: The Mediterranean eating plan doesn't have fixed servings, but general food guidelines. Use these suggestions to create your own eating plan. Your calorie needs may differ based on your age, activity level and health goals.

FOOD GROUP	What to Choose
EAT AS MAIN PART OF ALL MEALS	
 Vegetables	Variety of fresh, frozen or canned vegetables without added sauces, sodium or sugar.
 Fruit	Variety of fresh, frozen or canned fruit without added sauces, sodium or sugar.
 Legumes and Nuts	Lentils, beans and peas (dried or canned without added sauces, sodium or sugar). Almonds, walnuts, pecans and nut butters.
 Grains	Mostly whole grains. Whole-wheat breads and pasta. Brown rice, barley and oatmeal.
 Olive Oil and Herbs	Cook with olive oil instead of butter or other saturated fats. Season with herbs.
EAT TWO OR MORE TIMES A WEEK	
 Fish and Seafood	Marine fish and shellfish.
EAT MODERATE PORTIONS DAILY TO WEEKLY	
 Poultry	Chicken and turkey (3 oz portions, about the size of a deck of cards). Eggs.
 Dairy	Milk, yogurt and cheese.
EAT LESS OFTEN THAN OTHER FOODS	
 Meat	Beef and pork (3-4 times a month in 3 oz portions, about the size of a deck of cards).
 Sweets	Fresh fruit with honey instead of ice cream, pastries and pie.

WHOLE-FOOD, PLANT-BASED EATING PLAN

A whole-food, plant-based diet is a heart-healthy eating plan that can prevent and treat illnesses such as heart disease, high blood pressure, type 2 diabetes and some cancers. You will eat mostly whole or “minimally” processed foods. Whole foods are foods that are in their natural form, not processed, and do not have added ingredients. Some people avoid animal products, others eat a limited amount. To get the best health benefits, avoid animal products. If you omit animal

products, talk to your healthcare team about a B12 vitamin supplement.

GETTING STARTED: Keep it simple when making changes. Cut out or reduce one animal product or processed food at a time. Slowly increase your plants and whole foods to “crowd out” other foods on your plate. Use this chart to know what foods to choose often and those to avoid.

	Whole Foods <i>Best Choice</i>	Minimally Processed <i>Good Choice</i>	Highly Processed <i>Don't Choose</i>
Vegetables 	Starchy vegetables (corn, peas, potatoes, yams) and non-starchy vegetables (kale, broccoli, carrots, peppers, tomatoes).	Packaged fresh vegetables. Canned or frozen vegetables without added sodium (salt), sugar or sauce.	Packaged snacks. Sauces, condiments and soups. Juice. Deep-fried vegetables.
Fruits 	Whole fruits.	Packaged fresh fruit. Canned or frozen fruit without added sodium, sugar or sauce. Dried fruit without added sugar.	Packaged snacks. Dried fruit with sugar. Jelly or jam. Juice.
Legumes 	Dry beans, lentils and split peas.	Canned beans without added sodium or sauce. Tempeh, tofu, seitan or hummus.	Packaged snacks. Canned soup, beans or lentils with sauce.
Nuts and Seeds 	Unsalted almonds, pecans cashews, walnuts. Unsalted sunflower, pumpkin or sesame seeds. Limit to a small handful per day.	Unsalted nut butters without added sugars or oils.	Flavored nuts. Nut butters with salt, sugar or added oils and flavors.
Whole Grains 	Brown rice, wild rice, bulgur, barley, farro, quinoa, rolled oats.	Homemade (not microwave) plain popcorn. Whole-wheat pasta, bread or tortillas. Shredded-wheat cereal.	Packaged snacks or baked goods—even if they are whole grain. White rice, pasta or bread. Cereal and sweetened oatmeal.
Fats 	Avocados, coconut, olives, chia and flax seeds. Use fats in limited amounts.		Oils of any kind (includes but not limited to olive, coconut, avocado or canola oils). Vegetable-based butter alternatives.

PHYSICAL ACTIVITY

If you have high blood pressure, exercise can make a big difference. Regular physical activity can lower your blood pressure, make your heart stronger, and protect you from heart disease and stroke.

Tips to help you get moving

Add more movement in your day.

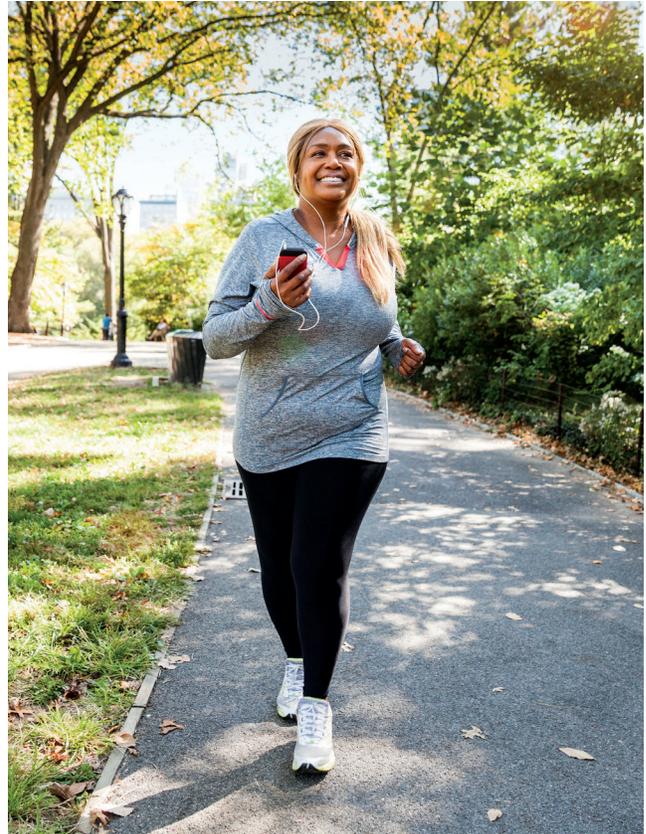
- Get up and move. When sitting, take regular breaks to walk or stretch about every 30 minutes. Set a fitness watch or timer to remind you.
- Walk more. Walk while talking on the phone or waiting. Take the stairs. Park your car farther away from where you are going. Take a short walk after meals.
- Add more movement around the house. Do chores like vacuuming or dusting. Go outside to garden, sweep or play with the kids.

Track your daily steps.

- Use a fitness tracker, pedometer or smart phone to track your steps.
- Track your steps for a week, then gradually add more steps each week. Try to work up to a goal of 7,000 to 10,000 steps per day.

Find something you enjoy—make it fun.

- Make a list of physical activities you enjoy and find times to fit them in your week.
- Find a friend and make regular plans with them.
- Be active while listening to music, audio books or podcasts. Use an exercise machine located where you can watch TV or movies.



Track goals and prepare for challenges.

- Set small, reasonable goals. Choose a goal that seems easy to meet.
- When challenges come up, have a backup plan. For example, plan for indoor activities when it is rainy or too hot outside.
- If you miss a day or two, no problem. Just get back on track as soon as you can.

How physically active should I be?

All of us need regular physical activity to keep our hearts healthy. Both aerobic activity and strength training offer benefits.

See the chart for recommended activity levels for adults aged 18-64 years. Recommendations are the same for adults 65 years and older who have good fitness and no chronic conditions. If you are over 65 and have a chronic condition, or if you are unsure about how much activity you should get, talk to your healthcare team.

Strength Training

Strength training makes the muscles do more work than they are used to. It can lower systolic blood pressure by approximately 4 to 5 mmHg.

Start slowly. Begin with a few easier exercises. Work up to doing two or three sets of 8 to 10 repetitions

for each muscle group: legs, hips, abdomen, chest, back, shoulders and arms.

Aerobic Activity

Aerobic activity means getting your body moving. It can lower your systolic blood pressure by approximately 5 to 8 mmHg.

- If you haven't been active recently, start with 10 to 15 minutes of gentle activity. Slowly increase your activity by 5 to 10 minutes every couple of weeks.
- Be active throughout the week. Try to add some activity every day—even small amounts at a time.
- Warm up and cool down for 5 minutes each time
- Use the "talk test." Follow these guidelines to be sure you're getting the right level of exercise:

Moderate level: You can still talk but can't sing.

Vigorous level: You can say only a few words before taking a breath.

Moderate Aerobic: 150 minutes a week

- Active Yoga
- Bicycling
- Dancing
- Exercise Class
- Tennis (doubles)
- Walking briskly
- Yard or home repair work

OR

Vigorous Aerobic: 75 minutes a week

- Aerobic dancing
- Bicycling 10 miles per hour or faster
- Heavy gardening (digging or hoeing)
- Hiking uphill or with a heavy backpack
- Racewalking, jogging or running
- Swimming laps
- Tennis (singles)

AND

Strength Training: 2 days a week, working all your muscle groups

- Exercises that use your body weight for resistance (planks, sit-ups, push-ups, lunges)
- Lifting weights
- Working with resistance bands

Use weights safely. When lifting:

- Use the correct technique. If you are not sure, ask an exercise professional for instructions.
- Avoid too much weight.
- Stop when you feel tired.
- Do not hold your breath.



Tips for exercising safely with high blood pressure

Moderate physical activity is safe for most people. Before you start a new activity plan, talk to your healthcare team. Working together, you can set the right goals for you.

Drink plenty of water. Drink water before, during and after exercise unless you were instructed otherwise. Exercise indoors if it's really hot, humid or cold outside.

Be cautious if you take blood pressure medication. Talk to your healthcare team about the side effects of your medications. Be aware of how your blood pressure medications can affect your activity.

- Beta blockers and some other blood pressure medications may affect your heart rate.
- Diuretics may increase your risk for dehydration.

Know when to get help. If possible, measure your blood pressure before exercising. If the numbers are very high or low, then don't exercise and contact your healthcare team:

- Very high—higher than 180 top (systolic) or higher than 120 bottom (diastolic) and your numbers remain high after resting for five minutes.
- Very low—lower than 100/50 and you feel dizzy.



Stop exercising if you feel sudden pain or discomfort that increases quickly. If the pain or discomfort doesn't go away when you stop, contact your healthcare team. Call 911 if you have signs or symptoms of a heart attack. See page 24 for details.

Stop using tobacco

Quitting smoking is one of the best things you can do for your heart. Ask your healthcare provider about support programs or nicotine replacement to help you quit.

Have a plan to quit.

- Choose a date to quit. Get rid of your tobacco by this date. Tell your friends and family, so they can help support your decision.
- Understand when and why you use tobacco. Write down the times you smoke and the triggers that lead to smoking. For example, do you smoke when you're bored, when you're upset or as a way to relax after work?
- Be clear on why you're quitting. Write down the reasons and review them regularly.
- Find replacement activities. Be prepared for the cravings, and do something else instead of smoking.
- Use positive talk. Remind yourself: "I'm worth it," "I can do this" and "I'm in control."
- If you smoke after your quit date, revisit your reasons for quitting. Forgive yourself immediately and get back on track. Remember, you're a nonsmoker now.

How will I feel?

Your body will miss the nicotine at first, and you may feel short-tempered and grumpy. You may have trouble sleeping or concentrating. Medicine can help you deal with these symptoms. Talk to your healthcare provider.

Use a nicotine replacement.

One way to quit smoking is to use a nicotine replacement. This way, your body can adjust to smaller and smaller doses of nicotine.

Limit alcohol

Too much alcohol can raise your blood pressure. Don't drink more than two standard drinks a day for men up to age 65, or one standard drink for women and anyone over age 65.

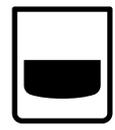
A standard alcohol drink is:



12 oz regular beer—about 5% alcohol



5 oz wine—about 12% alcohol



1.5 oz spirits (such as vodka or rum)—about 40% alcohol

Have a plan to limit alcohol.

- Pay attention to why you are drinking. Is it just habit? For example, are you drinking just because it is 6 p.m. or Saturday?
- Find some favorite nonalcoholic drinks that you can drink regularly.
- Have a large glass of ice water with every drink.
- Practice not accepting a drink when offered. Say "Thanks, I've had enough."
- Pick a day or two each week that you won't drink. Bit by bit, take more break days every week. You can work up to a "dry January" where you don't drink alcohol for a month.
- Think about how you feel when you don't drink. Do you feel better physically and emotionally?

Manage your weight

If you are overweight or obese, even a small weight loss can improve your blood pressure. Studies show that with about every two-pound loss in weight, you can lower your blood pressure by 1 mmHg.

Here are a few tips to help you lose weight.

Find your target weight.

The first step is to talk to your healthcare team about your weight. Ask about your body mass index (BMI) and waist size. Discuss a healthy weight range for you.

Make a plan for change.

Set goals you can reach and that you can change if you need to. Be easy on yourself and keep trying! Include your family and friends as support.

Ask for a referral to a registered dietitian. He or she can show you how to make healthy changes in your eating habits and recognize your hunger signals.

If you're at risk for diabetes, you may be eligible for the National Diabetes Prevention Program, which can lower blood pressure as well as prevent diabetes. Ask your healthcare team or insurance carrier about programs available to you.

Slowly change your eating and physical activity habits.

Try the tips outlined under Heart-Healthy Eating on page 9 and Physical Activity on page 14 to eat better and be more active. If you make small, reasonable changes, rather than drastic changes, you will have more long-term success.



Track your food and activity.

People who keep track of what they eat, feel and do are better at losing weight. Try writing down things like:

- What and how much you eat.
- How hungry or full you feel before and after each meal.
- Details about each meal (like eating out or at home, eating alone or with friends or family).

Change your thinking.

Negative thoughts can make it harder to reach a healthy weight. Don't compare yourself to others. Healthy bodies come in all shapes and sizes.

It can seem hard to make changes if all you see is the effort ahead and not what's waiting for you. Seeing a picture in your mind of where you want to be can help you get there.

Manage your stress

Stress is a natural part of life. However, too much stress can harm your health, especially if it continues day after day, month after month. This is chronic stress and can put you at risk for health problems like heart disease and depression.

Try these coping skills:

- Take time to do things that make you relaxed and feel good, even if it is only a 10-minute break in a long day. Listen to music, read, go for a walk in nature, do a hobby, take a bath or spend time with a friend.
- Exercise regularly. Any kind of exercise can lower stress and improve your mood.
- Eat and drink well. Try not to “stress eat.” Cut back caffeine and alcohol.
- Connect with people you enjoy. Go out for coffee with a friend, chat with a neighbor, call a family member, or visit a clergy member or spiritual leader.
- Try a daily practice of gratitude and joy. Take five minutes to make a list of things you are grateful for. Write a thank you note or pray for your good blessings.
- Try meditation and mindfulness. These practices combine breathing with focused thought. Use a phone app to guide you.

Deep Breathing

Slow and deep breathing can help you relax. Try these steps to focus on your breathing and repeat until you feel relaxed.

1. Find a comfortable position and close your eyes.
2. Exhale and drop your shoulders.
3. Breathe in through your nose; fill your lungs and then your belly. Think of relaxing your body, quieting your mind, and becoming calm and peaceful.
4. Breathe out slowly through your nose, relaxing your belly. Think of releasing tension, pain or worries.



Improve your sleep

Most adults need seven to nine hours of sleep each night. If you have trouble falling asleep and staying asleep, take action.

Try these healthy sleep habits:

- Limit caffeine drinks to the morning or early afternoon.
- Exercise regularly. Even 10 minutes of exercise can improve your sleep.
- Go to bed and get up at the same time every day, even on the weekends.
- Do not eat meals for at least two hours before bed.
- Skip alcohol. Alcohol impacts the quality of your sleep, leaving you tired the next day.
- Make a relaxing nightly routine. Try gentle stretching, meditation or deep breathing.
- About 30-60 minutes before bed, stay away from electronic devices (cellphone, TV, computer).

Create a good sleep environment .

- Make your bedroom a relaxing place used for sleep, intimacy and winding down.
- Try to keep TVs, computers and work out of your bedroom.
- Make the room dark, quiet and cool but comfortable when going to sleep.

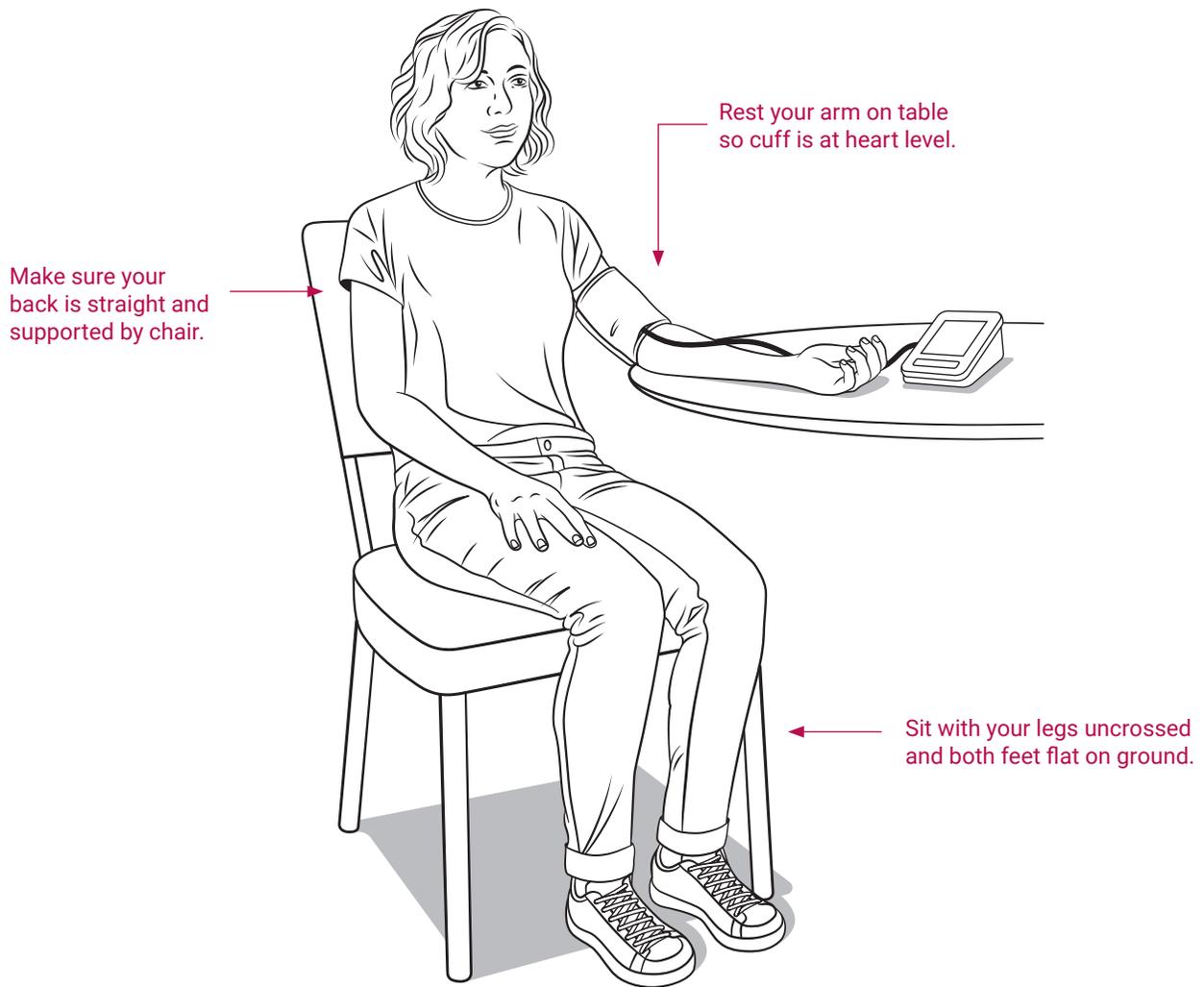


Monitoring Your Blood Pressure at Home

Measuring your blood pressure at home provides important information about your heart health. Follow these steps to get started. If you have questions, contact your healthcare team.

Choose a home blood pressure monitor

- Buy a monitor with an arm cuff. Most pharmacies sell automatic blood pressure monitors. Well-known national brands include Omron, A&D and Microlife. Don't buy a monitor with a wrist or finger cuff, which are not as accurate. Ask the pharmacist if you have questions.
- Make sure the arm cuff fits. Before you buy a blood pressure monitor, measure your arm so you can be sure the cuff will fit. Use a string or measuring tape to measure around the circumference of your upper arm, halfway between your elbow and shoulder.
- Make sure your monitor works correctly. Bring it in to your healthcare team when you first buy it and then once a year afterward. In addition, bring your monitor to get checked if your home measurements are regularly 10 mmHg different (higher or lower) than those at your healthcare visits.



How to measure your blood pressure correctly

Follow these steps to correctly measure your blood pressure. If you have questions, contact your healthcare team.

1. Don't drink caffeine (such as coffee), exercise or smoke for at least 30 minutes before taking your blood pressure.
2. Use the restroom and empty your bladder before sitting down.
3. Sit comfortably with both feet flat on the floor for five minutes before taking your blood pressure. Sit with your back straight and supported (on a dining chair, for example, instead of a sofa).
4. Rest your arm on a table so the blood pressure cuff is about the same height as your heart (the middle of your chest). Unless otherwise directed, you may use either arm, but use the same arm each time.
5. Wrap the cuff around your bare upper arm (not over clothing). Place the bottom of the cuff directly above the bend of the elbow.
6. Don't talk or do other activities while measuring your blood pressure.
7. Follow the instructions for your monitor to take two to three readings at least one minute apart.



Blood Pressure Medications

How is medicine used to treat high blood pressure?

If your blood pressure is elevated, you will likely be prescribed medication. There is very strong evidence that medications help prevent the harms of high blood pressure and keep your body safe.

You may have regular blood tests.

Blood tests will help to see how the medicine is working in your body. Over time, your healthcare provider may change the dosage or try a different medication or combination of medications.

You may need to avoid some medicines that you can buy without a prescription.

For example, check with your healthcare provider before you take any nonsteroidal anti-inflammatory drugs (NSAIDs). NSAIDs include Aleve® (naproxen) and Advil® (ibuprofen). NSAIDs may raise blood pressure and make it more difficult to treat.

Medicine Choices

The first medicines used to treat blood pressure may include:

- ACE inhibitors
- Angiotensin II receptor blockers (ARBs)
- Calcium channel blockers
- Thiazide diuretics

Other medicines used include:

- Beta-blockers
- Aldosterone Receptor Antagonists
- Alpha-blockers
- Vasodilators

All of these medicines work well to lower the risk of heart attack and stroke.

If you're prescribed medication, it's important to keep taking it even if you feel fine. If you have concerns about your medication, talk to your healthcare team. You may be able to reduce or stop your medication if you are able to lower your blood pressure through lifestyle changes.

Urgent and Emergency Care

Know when to call for help

Call your healthcare team if your blood pressure is either very high or very low.

- Very high—higher than 180 top (systolic) or higher than 120 bottom (diastolic) and your numbers remain high after resting for five minutes.
- Very low—lower than 100/50 and you feel dizzy.

Call 911 right away if you think you have any of signs or symptoms listed below. Tell them you think you may be having a heart attack or stroke.

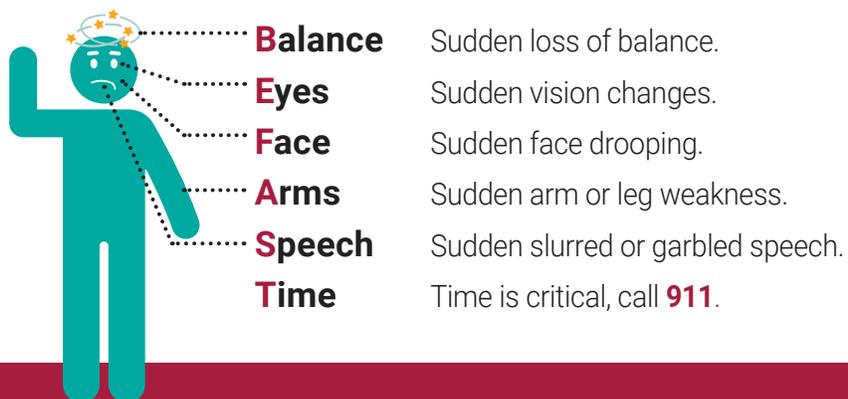
SIGNS OF A HEART ATTACK

- Chest pain that may feel like crushing, squeezing, tightness or pressure.
- Pain, pressure or discomfort in the back, neck, jaw or in one or both arms.
- Suddenly feeling dizzy, lightheaded or weak.
- Sudden sweating or clammy skin.
- Fast or irregular heartbeat.
- Shortness of breath.
- Nausea or vomiting.

SIGNS OF A STROKE

- Follow the BE FAST signs for stroke.

BE FAST to spot a stroke!



ONLINE RESOURCES FOR HIGH BLOOD PRESSURE

The American Heart Association

Information on high blood pressure and things you can do to manage your condition.

- heart.org

Diet information on sodium

- heart.org/en/healthy-living/healthy-eating/eat-smart/sodium
- cdc.gov/salt/reduce_sodium_tips

Heart-healthy eating

- heart.org/en/healthy-living
- choosemyplate.gov

DASH eating plan

- nhlbi.nih.gov/health-topics/dash-eating-plan

Mediterranean diet

- heart.org/en/healthy-living/healthy-eating

Whole-food, plant-based diet

- plantricianproject.org

Physical activity

- health.gov/moveyourway

Quitting smoking

- nobutts.org/

Reducing your alcoholic drinks

- rethinkingdrinking.niaaa.nih.gov/

Sleep

- sleepfoundation.org

Measuring your blood pressure

- <https://targetbp.org/>



sutterhealth.org