

HEALTHY YOU UNIVERSITY

HIGH BLOOD PRESSURE

Welcome to Healthy yoUniversty! For 8 weeks we will be exploring ways to exercise our mind and body with skills that will enable us to reclaim a healthy balance in our lives. Each week, you will receive a packet of information that focuses on a different health topic. The first page of the packet has four tickets with activities based on the information in the rest of the packet. Complete as many of these activities as you like. Then fill out the tickets for the completed activities, cut them apart, and submit them in the box located at our Information Desk. For every ticket you submit, you will receive an entry in to our drawing to win a \$50 Amazon Gift Card. Good Luck!

Read the Entire High Blood Pressure Packet

Name: _____ Phone Number: _____

Have your blood pressure checked this week

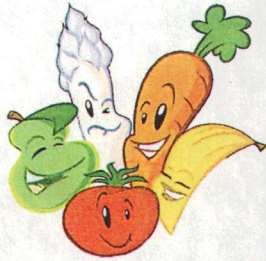
Name: _____ Phone Number: _____

Fill out the risk assessment for high blood pressure

Name: _____ Phone Number: _____

Try a heart healthy recipe this week

Name: _____ Phone Number: _____



HEALTHY YOU UNIVERSITY

HIGH BLOOD PRESSURE

What is high blood pressure?

High blood pressure, also known as hypertension, is a common condition in which the long-term force of the blood against your artery walls is high enough that it may eventually cause health problems such as heart disease. (Taken from:

<http://www.mayoclinic.org/diseases-conditions/high-blood-pressure/basics/definition/con-20019580>)

What are the symptoms of high blood pressure?

Most people with high blood pressure have no signs or symptoms, even if blood pressure readings reach dangerously high levels.

A few people with high blood pressure may have headaches, shortness of breath or nosebleeds, but these signs and symptoms aren't specific and usually don't occur until blood pressure has reached a severe or life-threatening stage. (Taken from:

<http://www.mayoclinic.org/diseases-conditions/high-blood-pressure/basics/symptoms/con-20019580>)

How Blood Pressure is Measured

How can you tell what your blood pressure is? By using a device called a blood pressure monitor, your healthcare provider can measure your blood pressure to see if it's in a healthy range. You've probably had your blood pressure taken during a visit to your healthcare provider's office.

Your blood pressure is recorded as two numbers. The systolic blood pressure (the "upper" number) tells how much pressure blood is exerting against your artery walls while the heart is pumping blood. The diastolic blood pressure (the "lower" number) tells how much pressure blood is exerting against your artery walls while the heart is resting between beats. Blood pressure is measured in units of millimeters of mercury, or mm Hg. For example, a blood pressure reading might be 120/80 mm Hg.

A healthy blood pressure is under 120/80 mm Hg. A blood pressure reading of 120-139 systolic or 80-89 diastolic is defined as "prehypertension." This means that the blood pressure is not high enough to be called high blood pressure (hypertension), but that it is higher than normal. If systolic blood pressure is 140 or greater, or diastolic blood pressure is 90 or greater, it's high blood pressure.



The table below shows healthy and unhealthy blood pressure ranges as recognized by the American Heart Association:

Blood Pressure Category	Systolic mm Hg (Upper #)		Diastolic mm Hg (Lower #)
Normal	Less than 120	And	Less than 80
Prehypertension	120-139	Or	80-89
High Blood Pressure (Hypertension) Stage 1	140-159	Or	90-99
High Blood Pressure (Hypertension) Stage 2	160 or higher	Or	100 or higher
Hypertensive Crisis (Emergency care needed)	Higher than 180	Or	Higher than 110



What Is High Blood Pressure?

Blood pressure is the force of blood pushing against blood vessel walls. High blood pressure (HBP) means the pressure in your arteries is higher than it should be. Another name for high blood pressure is hypertension.



Blood pressure is written as two numbers, such as 112/78 mm Hg. The top, systolic, number is the pressure when the heart beats. The bottom, diastolic, number is the pressure when the heart rests between beats. Normal blood pressure is below 120/80 mm Hg. If you're an adult and your systolic pressure is 120 to 139, or your diastolic pressure is 80 to 89 (or both), you have "prehypertension." High blood pressure is a pressure of 140 systolic or higher and/or 90 diastolic or higher that stays high over time.

No one knows exactly what causes most cases of high blood pressure. It can't be cured, but it can be managed. High blood pressure usually has no signs or symptoms. That's why it is so dangerous."

About 80 million Americans over age 20, 1 in 3 adults, have it, and many don't even know they have it. Not treating high blood pressure is dangerous. High blood pressure increases the risk of heart attack and stroke. You can live a healthier life if you treat and manage it!

Make sure you get your blood pressure checked regularly and treat it the way your doctor advises.

Who is at higher risk?

- People with close blood relatives who have HBP
- African Americans
- Overweight or obese people
- People who aren't physically active
- People who consume too much sodium (salt)
- People who drink too much alcohol
- People with diabetes, gout or kidney disease
- Pregnant women
- Women who take birth control pills, who are overweight, had HBP during pregnancy, have a family history of HBP or have mild kidney disease

In general, the older you get, the greater your chance of developing HBP.

How can I tell I have it?

You usually can't tell! Many people have it and don't know it. The only way to know if your blood pressure is high is to get it checked regularly by your doctor.

(continued)

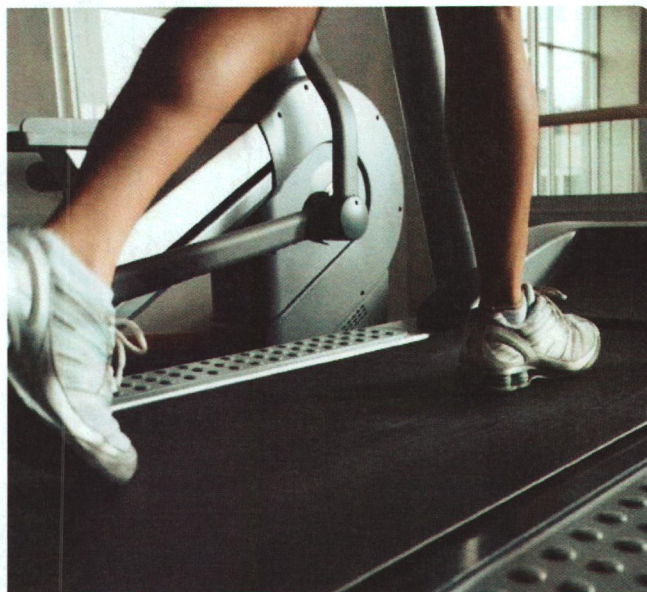


What can untreated high blood pressure lead to?

- Stroke
- Heart attack, angina or both
- Heart failure
- Kidney failure
- Peripheral arterial disease (PAD)

What can I do about it?

- Reach and maintain a healthy weight.
- Eat healthy meals low in saturated fat, *trans* fat, sodium (salt) and added sugars.
- Limit alcohol to no more than one drink per day for women or two drinks a day for men.
- Be more physically active. If you have high blood pressure, aim for at least 40 minutes of moderate-intensity physical activity at least 3 to 4 times a week.
- Take medicine the way your doctor tells you.
- Know what your blood pressure should be and work to keep it at that level.



How can medicine help?

Some medicines, such as vasodilators, help relax and open up your blood vessels so blood can flow through better. A diuretic can help keep your body from holding too much water and salt. Other medicines help your heart beat more slowly and with less force.

HOW CAN I LEARN MORE?

- 1** Call **1-800-AHA-USA1** (1-800-242-8721), or visit **heart.org** to learn more about heart disease and stroke.
- 2** Sign up to get *Heart Insight*, a free magazine for heart patients and their families, at **heartinsight.org**.
- 3** Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at **heart.org/supportnetwork**.

Do you have questions for the doctor or nurse?

Take a few minutes to write your questions for the next time you see your healthcare provider.

For example:

Will I always have to take medicine?

What should my blood pressure be?

My Questions:

We have many other fact sheets to help you make healthier choices to reduce your risk, manage disease or care for a loved one. Visit **heart.org/answersbyheart** to learn more.

Check. Change. Control.

Causes of high blood pressure

High blood pressure cannot be cured. It can, however, be managed very effectively through lifestyle changes and, when needed, medication.

In most cases, the cause of high blood pressure is not known. In fact, high blood pressure usually doesn't have symptoms. This is why it is sometimes called "the silent killer."

However, there are known risk factors for high blood pressure. These are conditions that are known to increase the risk for getting high blood pressure. Risk factors fall into two categories: those you can control, and those that are out of your control.

Risk factors that are outside of your control

- **Family history:** Just as hair and eye color can run in families, so can high blood pressure. If your parents or other close blood relatives have high blood pressure, there's an increased chance that you'll get it, too. This is why it's important to get your blood pressure checked on a regular basis. The American Heart Association recommends checking at your regular healthcare visit or every two years for people whose blood pressure is in a normal range.
- **Age:** The older you are, the more likely you are to get high blood pressure. As we age, our blood pressures gradually lose some of the elastic quality, which increases blood pressure.
- **Gender:** Until age 54, men are more likely to get high blood pressure than women are. But that changes as we age. From age 55 to 64, men and women get high blood pressure at similar rates. And at 65 and older, women are more likely to get high blood pressure than men are.
- **Race:** African Americans tend to develop high blood pressure more often than Caucasians. For African Americans, high blood pressure also tends to occur at younger ages and to be more severe.

Risk factors that you can control

- **Lack of physical activity:** Not getting enough physical activity as part of your lifestyle increases your risk of getting high blood pressure. Physical activity is great for your heart and circulatory system in general, and blood pressure is no exception.
- **An unhealthy diet, especially one high in sodium.** Good nutrition from a variety of sources is critical for your health. A diet that is too high in salt consumption, as

well as calories, saturated fat, and sugar, carries an additional risk of high blood pressure. On the other hand, making healthy food choices can actually help lower blood pressure.

- **Overweight and obesity:** Carrying too much weight puts an extra strain on your heart and circulatory system, and can cause serious health problems. Being overweight increases your risk of cardiovascular disease and diabetes. It also increases your risk of getting high blood pressure.
- **Drinking too much alcohol.** Regular, heavy use of alcohol can cause many health problems, including heart failure, stroke, and irregular heartbeats. Drinking too much alcohol can increase your risk of cancer, obesity, alcoholism, suicide, and accidents. It can also cause your blood pressure to increase dramatically.

In addition to these risk factors, there are others that may contribute to high blood pressure, although how is still uncertain. These include:

- **Smoking and tobacco use:** Using tobacco can cause your blood pressure to temporarily increase and can contribute to damaged arteries, which can make high blood pressure worse.
- **Stress:** Stress is not necessarily a bad thing in and of itself. But too much stress may contribute to increased blood pressure. Also, too much stress can encourage behaviors that increase blood pressure, such as poor diet, physical inactivity, and using tobacco or drinking alcohol more than usual.
- **Sleep apnea:** This is a condition in which some of the tissues in the throat collapse during sleep and block the breathing passageway. In response to that, the brain awakens the sleeper, who then gulps for air in order to open the trachea again. This cycle often repeats many times a night, leading to severe fatigue the following day from a lack of good sleep. Sleep apnea can be a contributing factor to high blood pressure.





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.

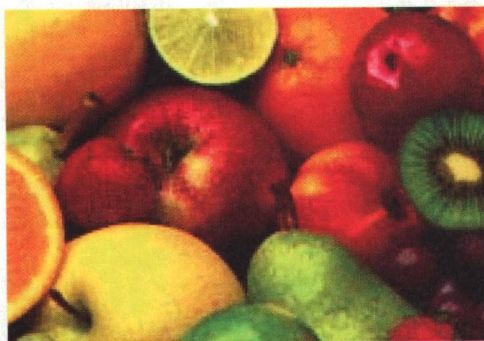
For an overall eating plan, consider DASH, which stands for “Dietary Approaches to Stop Hypertension.” You can reduce your blood pressure by eating foods that are low in saturated fat, total fat, and cholesterol, and high in fruits, vegetables, and lowfat dairy foods. The DASH eating plan includes whole 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.



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.

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.



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 $\frac{1}{4}$ cup of dried apricots instead of a 2-ounce bag of pork rinds. You'll save 230 calories.

To increase vegetables:

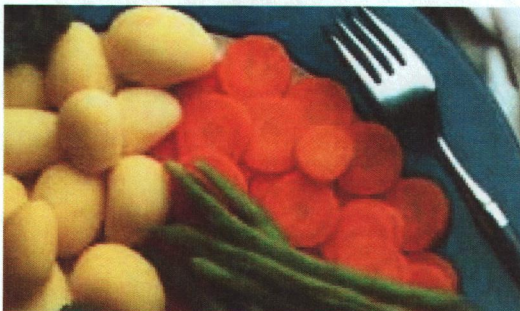
- Have a hamburger that's 3 ounces instead of 6 ounces. Add a $\frac{1}{2}$ cup serving of carrots and a $\frac{1}{2}$ cup serving of spinach. You'll save more than 200 calories.
- Instead of 5 ounces of chicken, have a stir fry with 2 ounces of chicken and $1\frac{1}{2}$ cups of raw vegetables. Use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


To increase lowfat or fat free dairy products:

- Have a $\frac{1}{2}$ cup serving of lowfat frozen yogurt instead of a $1\frac{1}{2}$ -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.

