### BetterYou

# Healthy Words of Wisdom

Love Your Heart
Know Your
Numbers!



The pressure of blood in the vessels when the heart beats:

**SYSTOLIC PRESSURE** 

less than 120/80 mmHg millimeters of mercury

The pressure between beats when the heart relaxes:

**DIASTOLIC PRESSURE** 

## Blood Pressure: What is it exactly?

Blood pressure is the force of blood pushing against the blood vessel walls. It's determined by measuring both the amount of blood your heart pumps and the resistance to blood flow in your arteries. The result shows two numbers: the top number, called **systolic** pressure, measures the blood's pressure when your heart beats. The bottom number, called **diastolic** pressure, measures the blood's pressure between beats when your heart relaxes.

When the force of the blood in the arteries is too high for too long, it becomes a life threatening condition called **hypertension** (high blood pressure). This makes your heart work too hard, hardens the walls of the arteries and can cause your brain to hemorrhage or your kidneys to function poorly, or not at all.

### Normal Blood Pressure

### What's your number?

Normal blood pressure is considered less than 120/80 mmHg, and high blood pressure is considered more than 140/90 mm/Hg. There are two stages of hypertension, or high blood pressure, as shown in the graph to the right. Readings falling between normal or high are classified as pre-hypertension, which, left unchecked, can lead to high blood pressure.

It's important to know your blood pressure numbers, even when you're feeling well. High blood pressure doesn't usually show outward signs or symptoms – that's why it's often referred to as the "silent killer".

Normal Blood Pressure less than 120/80 mmHg

Prehypertension

between 120-139 mmHg and/or 80-89 mmHg

**Stage One Hypertension** 

between 140-159 mmHg and/or 90-99 mmHg

**Stage Two Hypertension** 

greater than or equal to 160 mmHg and/or 100 mmHg

Hypertensive Crisis (Emergency care needed)

Greater than or equal to 180 mmHg and/or 110 mmHg



## How can I monitor my blood pressure?

You can monitor your blood pressure at the doctor's office or at home. Keep in mind that blood pressure readings can vary from day to day, and even minute to minute! That's why doctors usually only diagnose high blood pressure after two or more 140/90 mmHG or higher readings taken on different occasions.

### White-Coat Hypertension

At the doctor's office, you might experience "white-coat hypertension," which means your blood pressure is only high when you're there. If your doctor suspects this, you may be asked to monitor your blood pressure at home or wear a device called an ambulatory blood pressure monitor. This device is usually worn for 24 hours and can take your blood pressure every 30 minutes.

### Home Monitoring

For people with high blood pressure, at-home testing is usually part of the comprehensive plan to keep it within normal ranges. At home, you can either use the familiar blood pressure cuff and a stethoscope, or an electronic monitor. If you use an electronic monitor, be sure to read and understand the instructions for use. Your doctor, nurse or pharmacist can help you choose the right device and teach you how to use it.

### Who's at risk?

Anyone can develop high blood pressure, but the following factors can increase your risk:

- Advancing age
- Being African American
- Having a family history of the condition
- Being overweight or obese
- Being inactive
- Using tobacco
- Consuming too much sodium
- Consuming too little potassium
- Experiencing high or chronic stress

### Tips for Taking Your Blood Pressure

- Don't drink caffeine, smoke cigarettes or ingest any other form of stimulant 30 minutes before having your blood pressure taken.
- Empty your bladder. A full bladder can change your blood pressure reading.
- Before the test, sit for five minutes with your back supported and your feet flat on the ground. Rest your arm on a table at the level of your heart.
- Wear short sleeves so your arm is exposed.
- Get two readings taken at least two minutes apart and average the results.

Keep track of these numbers. Always ask the doctor for the results and keep a record of your at-home readings so you can discuss them with your doctor at your next visit.

## How High Blood Pressure Affects Your Body

High blood pressure affects more than just your heart. It can cause a host of medical conditions and complications, including:

Stroke: High blood pressure is a factor in 77 percent of strokes, which is the third leading cause of death in the U.S. Very high blood pressure can cause a break in a weakened blood vessel, which can bleed into the brain and lead to a stroke.

Impaired vision: High blood pressure can cause blood vessels in the eye to burst or bleed. Vision may become blurred or otherwise impaired, and can eventually result in blindness.

Hardened arteries: As we age, arteries throughout the body harden. Hardened arteries, or atherosclerosis, makes your heart work harder, raises your blood pressure and increases the risk for long-term damage to your heart, brain and kidneys.

Kidney damage: High blood pressure is the second leading cause of chronic kidney failure in the U.S. Over time, high blood pressure can narrow and thicken the blood vessels, which can cause the kidneys to filter less fluid and allow waste to build up in the blood. If a kidney fails altogether, dialysis or a kidney transplant may be needed.

Heart attack: High blood pressure is a factor in 67 percent of the heart attacks in the U.S. The arteries bring oxygen-carrying blood to the heart muscle and if the heart doesn't get enough oxygen, it causes chest pain (or angina). A heart attack occurs when blood flow is totally blocked.

Congestive heart failure: High blood pressure precedes 74 percent of the cases of heart failure in the U.S. Congestive heart failure is a serious condition that occurs when the heart is unable to pump enough blood to supply the body's needs.

Alzheimer's: High blood pressure affects circulation, creating a higher risk for mental deterioration and Alzheimer's disease.



### Prevention and Treatment

You can prevent and control high blood pressure with some modest lifestyle changes.

#### Maintain a Healthy Weight

Research shows that losing even 10 pounds can lower your blood pressure. If you have trouble maintaining a healthy weight on your own, seek professional support.

### Follow a Healthy Eating Plan

In general, the most effective diet for preventing and controlling high blood pressure is one that emphasizes fruits, vegetables and low-fat dairy foods; is low in saturated fat and cholesterol; and reduces salt and sodium intake.

For a structured approach, consider the Dietary Approaches to Stop Hypertension (DASH) eating plan. DASH emphasizes whole grains, poultry, fish and nuts and reduces fats, red meats, sweets and sugared beverages. This, combined with lowering your sodium intake, is likely to have the most significant positive effect on blood pressure.

The 2010 Dietary Guidelines for Americans recommend reducing sodium intake to less than 2300 milligrams (mg) per day, or approximately 1 teaspoon of salt. People who have been diagnosed with high blood pressure, diabetes, kidney disease, or those who are African American or 51 years of age and older should further reduce daily sodium intake to 1500 mg per day, or approximately 2/3 teaspoon of salt.

#### Limit Alcohol Intake

Drinking too much alcohol can raise blood pressure. If you drink alcohol, do so in moderation, which means a maximum of two drinks per day for men and one per day for women. One drink is considered 12 ounces of beer, 5 ounces of wine or 1 ½ ounces of liquor.

### Get Regular Physical Activity

Being physically active is one of the most important steps you can take to prevent or control high blood pressure. To achieve the health benefits you should engage in at least 150 minutes per week of moderate physical activity spread out over three or more days. Examples of moderate activity include water aerobics, bicycling, doubles tennis, ballroom dancing, general gardening and walking briskly. To make it more manageable, you can even divide the exercise sessions into short periods – as little as 10 minutes each.

### **Quit Smoking**

Smoking injures blood vessel walls and speeds the artery-hardening process. It increases the risk for stroke, heart disease, peripheral arterial disease and several forms of cancer. Even though it does not *cause* high blood pressure, smoking is bad for anyone, especially those with high blood pressure. If you smoke, quit. If you don't smoke, don't start. Once you quit, your risk of having a heart attack is reduced after the first year.

### **Quick Facts on Salt** and Sodium

- 1. Most sodium is consumed in the form of sodium chloride, which is table salt. Other forms of sodium are also found in food, so watch out for both salt AND sodium.
- 2. Processed foods account for most of the sodium and salt consumed.
- 3. Check labels carefully. Sodium is found in places you might not expect, like some antacids.
- 4. Kosher salt and sea salt are just that salt. Don't forget to count them as part of your daily sodium intake.



### Other Ways to Control Blood Pressure

**Potassium** helps to lower high blood pressure. Some good sources of potassium include white meats, root vegetables (such as potatoes with the skin and beets), melons, peaches, avocados, tomatoes, bananas, squash and lentils.

**Fats** do not directly affect blood pressure; however, saturated fats and cholesterol in foods raise blood cholesterol, which increases the risk for heart disease. Consistently overindulging in foods that are high in fat can cause unhealthy weight gain or obesity, which is a primary risk factor for high blood pressure.

**Caffeine** raises your blood pressure temporarily. Consuming caffeine in moderation is fine unless you are sensitive to it or your doctor advises against it.

**Stress** temporarily elevates blood pressure, which means that people who experience high levels of stress on a regular basis may also have chronically elevated blood pressure. Stress management techniques such as deep breathing, relaxation exercises and meditation have been shown to immediately reduce stress levels.



### Take Medication as Directed

If your doctor prescribes medication to help you control your high blood pressure, make sure you understand what it's for and how and when to take it. Then, take it as your doctor recommends.

### Tips for Safe Medication Use

- Always take your medications as directed.
- Keep a medication summary card with you at all times.
- Use a pill container or calendar to track daily use.
- Record side effects and tell your doctor.
- Follow your doctor's recommendations for periodic check-ups.
- Keep all medicines out of sight and reach of children.
- Go through your medicine cabinet at least once a year and throw out expired medications.

# When your doctor prescribes any medication, be sure to ask the following questions:

- What is the name of the drug?
- Is this a generic medication? If not, is there a generic alternative available?
- What is the dosing schedule?
- What side effects should I expect?
- How long will I be on this drug?
- How should I store this drug?
- Should I take this drug on an empty stomach or with food?

Remember, there are many medications available so if the first prescription doesn't help, or causes too many side effects, your doctor may be able to prescribe something else to try.

#### Resources:

www.cdc.gov; www.heart.org; www.nhlbi.nih.gov; www. cnpp.usda.gov; www.webmd.com

### Medication Management

If your doctor prescribes medication to treat your high blood pressure, don't forget to keep up your positive lifestyle changes. By doing so, you'll help your medicine work even better – and you may eventually need *less* medication, or none at all!

A wide variety of blood pressure medications are available, each with its own set of pros and cons. In some instances, your doctor may prescribe two medications to work together. The prescription choice depends on individual factors.

**Diuretics** may be the first class of medication your doctor chooses, and it may be all you need to control your blood pressure. Also known as "water pills," diuretics flush excess water and sodium from the body, which lowers blood pressure.

If additional medication is required, your doctor may choose from the following four categories of medications:

Angiotensin-converting enzyme inhibitors. Commonly referred to as "ACE inhibitors," these medications help blood vessels relax by blocking the production of a hormone that causes them to narrow.

Angiotensin II receptor blockers. This category of medications allows blood vessels to widen by preventing a hormone called angiotensin from affecting them.

**Beta blockers.** These medications work by reducing nerve signals to the heart and blood vessels, which lowers blood pressure.

Calcium channel blockers. This category of medications prevents calcium from going into the heart and blood vessel muscle cells, causing the cells to relax and lowering blood pressure.

