

## Hypertension, Essential, New Onset

### What is it?

Hypertension is also called high blood pressure. It occurs when the pressure inside the body's arteries is too high. It is normal for blood pressure to rise while under stress or when exercising and then go down again when the stress or exercise stops. If a person has hypertension, their blood pressure is high all the time. Constantly high blood pressure increases your risk of having a heart attack or a stroke. It causes other problems as well.

Blood pressure is given as two numbers. The first number is the systolic pressure. This measures the pressure during a heartbeat or contraction. The second number is the diastolic pressure. This is the pressure when the heart is resting between beats. A blood pressure lower than 120/80 is normal. If the systolic pressure is 120 to 139 or the diastolic pressure is 80 to 89, we say you have high normal or "prehypertension." A systolic pressure in the range of 140-159 or a diastolic pressure in the range of 90-99 is Stage 1 hypertension. Systolic pressure of 160 or over or diastolic pressure of 100 or more is Stage 2 hypertension.

Higher blood pressure means a higher risk for heart attack, stroke, and other problems. The risk of problems is also much higher if you have other risk factors like diabetes or smoking.

### What is the cause?

For most people, the cause of their high blood pressure is unknown. Often others in the family have had high blood pressure. Being nervous or stressed on occasion does not cause the problem. Smoking, being inactive, or being overweight may make high blood pressure worse.

### What are the symptoms?

Most people do not notice high blood pressure. Even though you cannot feel it, hypertension will damage your body if not treated. If your blood pressure is very high, you may have a headache, shortness of breath, chest pain, numbness or tingling in your hands and feet, or a nosebleed. However, even with very high blood pressure, there are often no symptoms until you have a heart attack or stroke.

### How is it treated?

How we treat your high blood pressure will depend on how high it is. It also depends on whether you have other conditions that put you at risk for heart disease or stroke.

If you have prehypertension, we may just have you make some changes in your lifestyle. If you smoke, quit. Smoking and high blood pressure together put you at great risk of heart disease, heart attacks, or stroke. We can help you stop smoking. There are many other things you can do that may help lower your blood pressure. The first is to lose weight if you are overweight. Even a small weight loss of 5 or 10 pounds may help.

We also suggest cutting down on salt, fat, and alcohol in your diet. It is important that you get plenty of potassium, calcium, and magnesium in your diet or with supplements. Finally, get regular exercise. By this we mean a brisk walk for 30 to 45 minutes most days of the week. You may need to work up to this. Try walking for 10 minutes a day at first if you are not used to exercise.

We will treat you with medicine if:

- You have Stage 1 or 2 hypertension
- You have other conditions that increase your risk of heart disease or stroke
- Lifestyle changes do not lower your blood pressure enough

We treat hypertension with medicines called diuretics, ACE inhibitors, and beta-blockers. You may need to take more than one medicine to control your blood pressure. If you have other problems that increase your risk, you may need other medicines as well.

### What can I expect?

Lifestyle changes and medicine cannot cure high blood pressure. However, they can help to control it. With good control, many problems related to high blood pressure can be avoided. You will need to monitor your blood pressure by taking it at home or by having it taken periodically. We will need to see you often until your blood pressure is controlled. After that we will need to see you at least twice a year.

If we prescribe medicine, keep taking it even if your blood pressure becomes normal. Your blood pressure is normal because of the medicine. Do not stop taking it without talking with us first. Continue to eat well, exercise, and avoid smoking. All these changes help keep your blood pressure down.

### What to watch for.

Call or seek medical care right away if you have high blood pressure and any of the following symptoms:

- A sudden severe headache unlike any you've ever had
- Trouble breathing
- Chest pain
- Weakness, tingling, or numbness in hands or feet
- Nosebleed

## Other Types of Hypertension:

### Reactive Hypertension

#### What is it?

Your blood pressure reading was high when we checked it today. However, your blood pressure readings taken other places may have been normal. We suspect that you have reactive hypertension. This means your blood pressure goes up when you are anxious. Being in a clinic or hospital may make you anxious. These places are filled with people in white coats. We often call a single high blood pressure reading in such a place a "white coat" effect.

High blood pressure means the pressure inside the body's arteries is high. It is normal for blood pressure to rise while under stress or when exercising. It should then go down again when the stress or exercise stops. If a person has true hypertension, their blood pressure is high all the time.

Blood pressure is given as two numbers. The first number is the pressure when the heart is beating. The second number is the pressure when the heart is resting between beats. A blood pressure of 129/84 or lower is normal. A blood pressure of 140/90 or higher is high. We call this hypertension. If your blood pressure is between these ranges, we say you have "prehypertension."

#### What are the symptoms?

You may feel anxious when you are having a medical exam. High blood pressure usually does not cause any symptoms.

#### How is it treated?

We usually do not treat this kind of high blood pressure. We expect that your blood pressure is usually not high. We may ask you to get your blood pressure checked somewhere else when you are not feeling anxious. We may just check it again at the end of the visit. We will want to check your blood pressure every few months. We will do this to make sure you are not developing true high blood pressure. We may teach you to check it at home yourself. We may ask you to check it frequently for 24 hours.

### Systolic Hypertension

#### What is it?

High blood pressure means the pressure inside the arteries is too high. The medical term for this is hypertension. It is normal for blood pressure to rise while under stress or when exercising. The pressure then goes down again when the stress or exercise stops. If a person has hypertension, their blood pressure is high all the time.

Blood pressure is given as two numbers. The first number is the systolic pressure. This means the pressure when the heart is beating. The second number is the diastolic pressure. This is when the heart is resting between beats. A blood pressure of lower than 120/80 is normal. If the systolic pressure is 120 to 139 or the diastolic pressure is 80 to 89, we say you have "prehypertension." A systolic pressure in the range of 140-159 or a diastolic pressure in the range of 90-99 is Stage 1 hypertension. Systolic pressure of

160 or over or diastolic pressure of 100 or more is Stage 2 hypertension.

Some people have only a raised systolic pressure, while their diastolic pressure is normal. In other words, their systolic blood pressure is consistently greater than 140. However, their diastolic pressure is usually less than 90. This is called systolic hypertension. Untreated systolic hypertension increases your risk of heart attack, stroke, kidney damage, and other problems. In the elderly, it may be even more important to control systolic hypertension.

High blood pressure often occurs in people who have other health problems. For instance, people with diabetes, high blood fat levels like high cholesterol, and heart failure often have high blood pressure. Any one of these increases your risk of heart attack, stroke, or kidney problems. Having more than one of these problems greatly increases your risk.

#### What are the symptoms?

High blood pressure usually does not cause any symptoms. If your blood pressure is very high, you may have a headache, shortness of breath, or chest pain. Other symptoms include numbness or tingling in your hands and feet or a nosebleed. Untreated high blood pressure causes stroke, heart failure, heart attacks, and kidney failure. If you have high blood pressure, you must take and stay on your medicine to avoid these complications.

#### How is it treated?

If you have Stage 1 or Stage 2 hypertension, we will give you medicine to lower your blood pressure. If you have other problems like diabetes or high cholesterol, we will treat these as well.

We usually recommend lifestyle changes. Sometimes this is all that is needed to treat prehypertension. Lifestyle changes that can help your blood pressure include:

- Stop smoking. If you continue to smoke, treatment may not make any difference in your blood pressure.
- Lose weight. Losing even just 5 or 10 pounds can help.
- Eat a balanced diet that is low in salt and fat.
- Exercise more. You do not have to start a running program!
- Drink less alcohol. Too much alcohol can raise your blood pressure.

Walking is excellent exercise. Try to take a brisk walk for half an hour most days of the week. You can work up to this. If you are not used to exercise, start with a 10-minute walk. Women should drink no more than one alcoholic drink each day. Men should drink no more than two drinks each day. One drink equals one 12-ounce beer, one 5-ounce glass of wine, one wine cooler, or one shot of hard liquor.

## Instructions:

**A diet low in sodium and high in potassium, magnesium, and calcium can help your blood pressure.**

To decrease the sodium in your diet:

- Use fresh vegetables and foods as much as possible.
- Avoid canned and processed foods. Cured meats such as bacon, ham, and sausages are high in salt.
- Try using different herbs and spices in your cooking instead of salt.
- In restaurants, avoid foods with sauces, cheese, and cured meats. Ask for low-sodium choices.

To get more potassium in your diet, eat:

- Bananas, fresh or dried apricots, peaches, citrus fruits, melons
- Cauliflower, broccoli, tomatoes, carrots, raw spinach, beet greens, potatoes

To get more magnesium in your diet, eat:

- Whole grain foods, leafy green vegetables, dried fruits
- Fish and seafood, poultry

To get more calcium in your diet, eat:

- Nonfat milk, yogurt, and low-fat cheeses
- Salmon and sardines
- Cooked dried beans
- Broccoli, kale, and bok choy
- Tofu or soybean curd

## **We recommend a cardiac catheterization.**

This procedure allows us to check many things about your heart. We do this test when someone has heart disease or a suspected heart defect.

It is done in the hospital or a special center. You will be given a mild sedative to relax you. An incision is made in a blood vessel in your neck, arm, or groin. First the spot is numbed. You will feel the prick for the anesthetic, and perhaps some pressure. A thin, flexible tube called a catheter is then inserted into the blood vessel. This is threaded all the way to your heart. Dye is injected through the tube into the arteries of your heart. Then pictures are taken using a kind of X-ray called fluoroscopy. This will show any narrowing of the arteries that feed the heart muscle. It also shows your heart in motion. You will have to lie still for most of the test, which can take several hours. You should feel no pain during all this. Usually you can go home afterwards. Someone else should drive you home. Follow all directions for preparing for this procedure and what to do or watch for afterwards.

## Instructions:

**Brush your teeth 3 times a day and floss at least once a day.**

By brushing your teeth after meals and using dental floss once a day, you can prevent tooth decay. Tooth decay may cause you to lose your teeth, making it difficult to eat. It also causes bad breath and gum disease. Recent research shows that gum disease may be linked to heart disease, pneumonia, and high blood sugar levels. It may also increase the risk of preterm delivery in pregnant women.

Spend several minutes brushing all surfaces of the teeth. Angle the bristles so they are half on tooth and half on the gums. Use a gentle circular motion to brush. Do not brush the gums too hard. Replace your toothbrush every 1 to 2 months. Never share a toothbrush. A used toothbrush has many germs on it. Sharing it may spread infection.

Floss your teeth every day. Flossing removes food caught between your teeth. Flossing completes the cleaning that begins with brushing. Brushing alone only cleans about three quarters of the tooth surface. Have your dentist show you how. Wash your hands before and after flossing.

Your dentist may suggest that you use mouthwash every day. Look for a mouthwash that is approved by the American Dental Association for killing germs that can cause gum disease.

**Dairy foods are not the only way to get calcium in your diet.**

You can also get increased calcium by taking calcium supplements. Tums can provide an inexpensive form of calcium.

**There are many exercise options for seniors.**

Walking is the easiest way for most people to exercise.

- Start out walking only 10 to 15 minutes at a time, and avoid hills.
- Stretch your leg muscles before and after walking. Ask us to show you how to stretch.
- Wear comfortable, supportive shoes.
- Wear sunscreen or a hat whenever you're outdoors for more than a few minutes. In cold weather, add gloves and a scarf.
- Gradually work up to walking 20 to 40 minutes at least every other day.
- Talk to us before you start walking up hills.
- Check your breathing. If you can sing, walk faster. If you can't talk, slow down.

Shopping malls are safe and sheltered places to walk. Many malls open their doors early for walkers.

- Walk with a friend. You'll both be more likely to stick to it.

Gardening counts as exercise.

- Be sure to stretch before and after you garden to avoid stiff muscles. Ask us to show you how to stretch.
- Drag or roll heavy items like bags of mulch instead of lifting them.
- Use pads to sit or kneel on.
- Always wear gloves to protect your hands.
- Always wear sunscreen or a hat when working outdoors.

Golfing can be good exercise.

- Walk as much of the course as you can each time. Try to work up to walking the entire way.
- Stretch your back, shoulders, and arms before you play. Ask us to show you how to stretch.
- Always wear sunscreen or a hat when outdoors for more than a few minutes.

Water exercise is good if you are unsteady on your feet or have sore joints. Water supports you while you exercise. Your local senior center or exercise center may offer water aerobics or exercise classes. You don't have to know how to swim. The classes are held in the shallow end. Wear a pair of old sneakers or special water shoes to protect your feet.

Weight training will help you stay strong. Your local senior center or exercise center may have classes in weight training for seniors. You can do most weight training while sitting down.

## Hypertension, Essential, Follow-Up

### What is it?

Hypertension, or high blood pressure, occurs when the pressure inside the blood vessels is too high. Blood pressure normally goes up for a short time when a person exercises or is under stress. With hypertension, blood pressure is high even when resting.

Blood pressure is given as two numbers. The first number is the systolic pressure. This is the pressure during a heartbeat. A heartbeat is also called a contraction. The second number is the diastolic pressure. This is when the heart is resting between beats. A blood pressure of lower than 120/80 is normal. If the systolic pressure is 120 to 139 or the diastolic pressure is 80 to 89, we say you have high normal blood pressure or "prehypertension." A systolic pressure in the range of 140-159 or a diastolic pressure in the range of 90-99 is Stage 1 hypertension. Systolic pressure of 160 or over or diastolic pressure of 100 or more is Stage 2 hypertension.

Higher blood pressure means greater risk for heart attack, stroke, and other problems. The risk is also much higher if you have other problems like diabetes.

Each beat of the heart sends a surge of blood through the arteries. With age, the arteries become more stiff and narrow. The heart must work harder to pump blood through them. When the heart works harder, it beats with more force. This puts more pressure on the arteries and raises the blood pressure. High blood pressure damages the blood vessels, heart, and kidneys. This can lead to heart attacks, strokes, and kidney failure.

### What is the cause?

For many people, the cause of hypertension is unknown. Other people in your family may have high blood pressure. Many things affect your blood pressure. Being nervous or stressed may make your blood pressure higher for a short period of time. This does not mean you have hypertension. Most hypertension is related to arteries that have become narrow or stiff with age. Arteries become narrow when cholesterol is deposited in them. This can be a problem that runs in your family, or from a diet high in fat. Over time cholesterol hardens and makes the artery walls stiff.

Hypertension can be caused by problems with the kidneys or thyroid gland. People who have diabetes often have high blood pressure too. It can be caused by some medicines. Diet, smoking, alcohol, and being overweight all can affect blood pressure. Salt in your diet and some hormones can make your body hold on to more fluid. This extra fluid is usually in the blood. Extra fluid in the blood adds to your blood volume and increases the work of the heart, leading to increased blood pressure.

### What are the symptoms?

Most people do not notice high blood pressure. There usually are no symptoms to tell you something is wrong. It is sometimes called the silent killer because, if not treated, high blood pressure can lead to heart attacks and strokes. Even though you may not feel it,

hypertension will damage your body if not treated.

In rare cases, blood pressure becomes extremely high. This is called a hypertensive crisis. If this happens you may have a headache, chest pain, or nausea. You may have a seizure.

### How is it treated?

We usually suggest lifestyle changes that can help you control your blood pressure and improve your health. For prehypertension, this may be all that is needed.

The most important thing you can do is to lose weight if you are overweight. Exercise will help you lose weight and improve your health generally. Exercise can be as simple as a brisk walk for 30-45 minutes most days of the week. If you have not been exercising at all, start out slow with a 10-minute walk. Gradually build up to walking longer.

We may also suggest changes in your diet, especially cutting down on the amount of salt, cholesterol, and fat you eat. The risk of heart disease appears to be less in those who drink alcoholic beverages moderately. Moderate drinking means no more than one drink a day for women and no more than one to two drinks a day for men. A drink is one 12-ounce beer, one 5-ounce glass of wine, one wine cooler, or one shot of hard liquor. Having high blood pressure is not a reason to start drinking alcohol, however. More than a little alcohol can increase blood pressure. If you smoke, stop. Smoking raises your blood pressure and increases your risk of heart disease and stroke. If you need help to quit smoking, talk to us. There are many programs and methods to help you.

If you have Stage 1 or Stage 2 hypertension, you will also need to take medicine. We usually start with a medicine called a diuretic, an ACE inhibitor, or a beta-blocker. Many people need to take more than one medicine to control their blood pressure. You will still need to make the same lifestyle changes.

### What can I expect?

Lifestyle changes and medicines do not cure hypertension, but they can control it. With good control, you may be able to avoid many of the problems that come from hypertension. You will need to check your blood pressure regularly. We can teach you how to take it at home. You can also have your blood pressure checked at a number of places. Most hospitals and fire stations and many pharmacies offer services to check blood pressure. Regular checkups will help make sure your blood pressure stays under control. We can work with you to spot small problems before they become big ones.

It may be necessary to change your medicines or doses from time to time. Regular checkups will help us monitor this so that you have the right medicines and dose.

Untreated hypertension can lead to many problems in your body. It is a major cause of stroke, heart disease, kidney disease, and retinopathy, which affects vision. Continue to take your blood

pressure medicine even when your blood pressure is normal. Your blood pressure is normal because of the medicine. Do not make any changes in your medicines without checking with us first. In some cases we may take you off the medicine after a while to see if you no longer need it. We will need to see you regularly to check that your blood pressure remains low.

**What to watch for.**

Seek medical help immediately if any of the following occur:

- A sudden severe headache unlike any you've ever had
- Trouble breathing
- Chest pain
- Tingling, weakness, or numbness in hands or feet
- Sudden loss of strength, feeling, or the ability to move part of your body
- Dizziness for no obvious reason
- Difficulty with speech
- Nosebleed