



Stroke Education for Patients and Their Families

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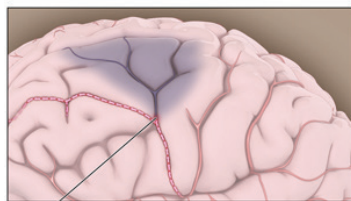
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Learning About an Ischemic Stroke



A clot blocking blood flow to an area of the brain

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What is an ischemic stroke?

An ischemic (say "iss-KEE-mick") stroke occurs when a blood clot blocks a blood vessel in the brain. This means that blood cannot flow to some part of the brain. Without blood and the oxygen it carries, this part of the brain starts to die.

This is different from a hemorrhagic (say "heh-muh-RA-jick") stroke, which happens when a blood vessel in the brain has burst open or has started to leak.

The brain damage from a stroke starts within minutes. The part of the body controlled by the damaged area of the brain cannot work properly. Quick treatment can help limit damage to the brain and make recovery more likely.

The problems someone has after a stroke depend on what part of the brain was affected and how much damage the stroke caused. A stroke may affect movement and senses, speech, memory, thinking, or emotions. Stroke rehabilitation, which includes training and therapy, can help people recover.

What are the symptoms?

If you have any of these symptoms, call 911 or other emergency services right away:

- You have symptoms of a stroke. These may include:
 - Sudden numbness, tingling, weakness, or loss of movement in your face, arm, or leg, especially on only one side of your body.
 - Sudden vision changes.
 - Sudden trouble speaking.
 - Sudden confusion or trouble understanding simple statements.
 - Sudden problems with walking or balance.
 - A sudden, severe headache that is different from past headaches.
 - Fainting.
 - A seizure.

Call 911 if you have symptoms that seem like a stroke, even if they go away quickly. You may have had a transient ischemic attack (TIA). A TIA is a warning that a stroke may happen soon. Getting early treatment for a TIA can help prevent a stroke.

What causes an ischemic stroke?

An ischemic stroke is caused by a blood clot that blocks blood flow in the brain. Causes of blood clots include:

- Hardening of the arteries (atherosclerosis). This is caused by high blood pressure, diabetes, high cholesterol, or smoking.
- Atrial fibrillation.

How is ischemic stroke treated?

Emergency treatment may be done to restore blood flow to the brain using medicine or a procedure. Medicine and a heart-healthy lifestyle can help prevent another stroke. A stroke rehab program can help you recover and learn ways to adapt to changes caused by a stroke.

How can you help prevent another stroke?

- Work with your doctor to treat any health problems that raise your risk. These include atrial fibrillation, diabetes, high blood pressure, and high cholesterol.
- Be safe with medicines. Take your medicine exactly as prescribed. Call your doctor if you think you are having a problem with your medicine.
- Have a healthy lifestyle.
 - **Do not smoke** or allow others to smoke around you. If you need help quitting, talk to your doctor about stop-smoking programs and medicines. These can increase your chances of quitting for good.
 - **Limit alcohol** to 2 drinks a day for men and 1 drink a day for women.
 - **Stay at a healthy weight.** Lose weight if you need to.
 - **Be active.** Ask your doctor what type and level of activity is safe for you.
 - **Eat heart-healthy foods.** These include vegetables, fruits, nuts, beans, lean meat, fish, and whole grains. Limit sodium and sugar.
- Get vaccinated against COVID-19, the flu, and pneumonia.
- If you think you may have a problem with alcohol or drug use, talk to your doctor.

Follow-up care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

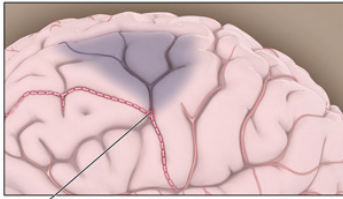
Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **D161** in the search box to learn more about "**Learning About an Ischemic Stroke.**"



Learning About Thrombolytic Treatment for Stroke



A clot blocking blood flow to an area of the brain

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What is thrombolytic treatment?

Thrombolytics are medicines that dissolve blood clots. Most strokes are caused by a blood clot. This kind of stroke is called an ischemic (say "iss-KEE-mick") stroke. For an ischemic stroke, this medicine can dissolve the clot quickly and help blood to flow in a normal way again. This can help limit damage to the brain.

The medicine is given through a vein in your hand or arm. It travels through the bloodstream to the clot.

Doctors try to give the medicine within 4½ hours after stroke symptoms start.

An example of this medicine is called TPA (tissue plasminogen activator).

How does thrombolytic treatment help during a stroke?

When a blood clot moves to a blood vessel in the brain, it blocks blood flow to that area and causes a stroke. Without blood and the oxygen it carries, that part of the brain starts to die. If blood supply isn't restored, permanent damage usually occurs. The body parts controlled by those damaged cells can't work, or function, as they should. This loss of function may be mild or severe. It may be short-term or lifelong.

Thrombolytic treatment can improve recovery from a stroke. Doctors try to give it as soon as possible after the stroke happens. It can limit brain damage from a stroke by dissolving the blood clot. Without medicine to dissolve it, a blood clot in your brain is more likely to cause serious brain damage.

In general, the less damage there is to the brain tissue, the less disability a stroke causes. And with less damage to brain tissue, you are more likely to recover from the stroke.

No treatment can guarantee a full recovery from a stroke. But this medicine does improve your chances of having less or no disability after a stroke.

What are the risks of thrombolytic treatment?

The main risk of thrombolytic treatment is that it can cause serious bleeding in the body. If bleeding happens in the brain, it can cause worse stroke symptoms or even death.

Doctors are very careful about using this medicine. For example, a brain scan is done before treatment to make sure you have no signs of bleeding. (Thrombolytic treatment would make any bleeding worse.) And after treatment, you are closely watched for some time to make sure you have no internal bleeding.

Is there another treatment choice?

When your doctor tells you that thrombolytic treatment is a choice for you, it's because he or she believes that it offers you the best chance of recovery from stroke. But because this medicine also has risks, it is up to you to choose it or not.

Based on your condition, your doctor will explain what other choices you have for treatment. They may include other medicines that stop the clot from getting bigger.

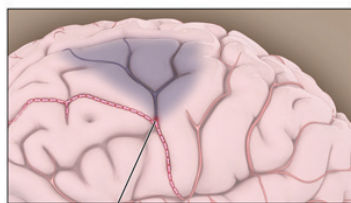
With or without thrombolytic treatment, you will have care to help you get better. And you'll have medicine to prevent blood clots and control symptoms.

Having a stroke can make it hard to make quick and complex decisions. Feeling afraid or anxious can make it even harder to think clearly. Your hospital staff understands this. They will explain your choices and answer your questions. And they will help you decide about your treatment.

Follow-up care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.



Transient Ischemic Attack: Care Instructions



Blood flow blocked to an area of the brain for a short time

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Overview

A transient ischemic attack (TIA) is when blood flow to a part of your brain is blocked for a short time. A TIA causes stroke symptoms that can last for at least a few minutes. Stroke symptoms include sudden weakness or loss of movement in a part of your body, confusion, vision changes, trouble speaking, and trouble walking or balancing. But unlike a stroke, a TIA doesn't cause lasting brain damage.

TIA's are often warning signs of a stroke. Some people who have a TIA may have a stroke in the future. If you have symptoms of a stroke, call for emergency help right away. Quick treatment can help limit damage to the brain and increase the chance of recovery.

You can take steps to help prevent a stroke. These steps include managing health problems that raise your risk, taking medicine that prevents blood clots, and having a heart-healthy lifestyle. This lifestyle includes being active, eating healthy foods, staying at a healthy weight, and not smoking.

Follow-up care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

How can you care for yourself at home?



Medicines

- Be safe with medicines. Take your medicines exactly as prescribed. Call your doctor if you think you are having a problem with your medicine.
- If you take a blood thinner, such as aspirin, be sure you get instructions about how to take your medicine safely. Blood thinners can cause serious bleeding problems.
- Call your doctor if you are not able to take your medicines for any reason.
- Do not take any over-the-counter medicines or herbal products without talking to your doctor first.
- If you use hormonal birth control or hormone therapy for menopause, talk to your doctor. Ask if these are right for you. They may raise the risk of stroke in some people.

Heart-healthy lifestyle

- Do not smoke. If you need help quitting, talk to your doctor about stop-smoking programs and medicines.
- Be active. If your doctor recommends it, get more exercise. Walking is a good choice. Bit by bit, increase the amount you walk every day. Try for at least 30 minutes on most days of the week. You also may want to swim, bike, or do other activities.

- Eat heart-healthy foods. These include vegetables, fruits, nuts, beans, lean meat, fish, and whole grains. Limit sodium and sugar.
- Stay at a healthy weight. Lose weight if you need to.
- Limit alcohol to 2 drinks a day for men and 1 drink a day for women.

Staying healthy

- Manage other health problems that raise your risk of stroke. These include atrial fibrillation, diabetes, high blood pressure, and high cholesterol.
- If you think you may have a problem with alcohol or drug use, talk to your doctor.
- Avoid infections such as COVID-19, colds, and the flu. Get the flu vaccine every year. Get a pneumococcal vaccine shot. If you have had one before, ask your doctor whether you need another dose. Stay up to date on your COVID-19 vaccines.

When should you call for help?



Call 911 anytime you think you may need emergency care. For example, call if:

- You have symptoms of a stroke. These may include:
 - Sudden numbness, tingling, weakness, or loss of movement in your face, arm, or leg, especially on only one side of your body.
 - Sudden vision changes.
 - Sudden trouble speaking.
 - Sudden confusion or trouble understanding simple statements.
 - Sudden problems with walking or balance.
 - A sudden, severe headache that is different from past headaches.

Call **911** even if these symptoms go away in a few minutes.

- You feel like you are having another TIA.

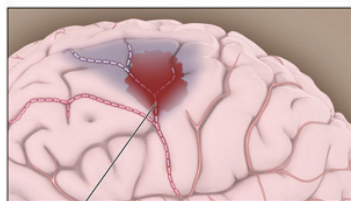
Watch closely for changes in your health, and be sure to contact your doctor if you have any problems.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **I231** in the search box to learn more about "**Transient Ischemic Attack: Care Instructions.**"

Learning About a Hemorrhagic Stroke



Bleeding inside or around brain tissue

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What is a hemorrhagic stroke?

When you have a hemorrhagic (say "heh-muh-RA-jick") stroke, it means that a blood vessel in the brain has burst open or has started to leak. When the blood spills into the space inside and around the brain, it damages nearby nerve cells.

This is different from an ischemic (say "iss-KEE-mick") stroke, which happens when a blood clot blocks a blood vessel in the brain.

The brain damage from a stroke starts within minutes. The part of the body controlled by the damaged area of the brain cannot work properly. Quick treatment can help limit damage to the brain and make recovery more likely.

The problems someone has after a stroke depend on what part of the brain was affected and how much damage the stroke caused. A stroke may affect movement and senses, speech, memory, thinking, or emotions. Stroke rehabilitation, which includes training and therapy, can help people recover.

What are the symptoms?

The most common symptom of hemorrhagic stroke is a sudden and severe headache. Many people describe it as "the worst headache of my life."

If you have any stroke symptoms, call **911 or other emergency services right away.**

- Stroke symptoms include:
 - Sudden numbness, tingling, weakness, or loss of movement in your face, arm, or leg, especially on only one side of your body.
 - Sudden vision changes.
 - Sudden trouble speaking.
 - Sudden confusion or trouble understanding simple statements.
 - Sudden problems with walking or balance.
 - A sudden, severe headache that is different from past headaches.
 - Fainting.
 - A seizure.

Other symptoms include:

- Nausea and vomiting.
- Neck stiffness.
- Dizziness.
- Changes in mental state, such as irritability or confusion.

What causes a hemorrhagic stroke?

A hemorrhagic stroke occurs when weakened blood vessels burst or leak. Causes of weakened blood vessels in the brain include:

- **A brain aneurysm.** This is a bulging, weak part of a blood vessel. It can put pressure on nerves, or it can bleed or break open (rupture).
- **A brain AVM.** This is an abnormal knot of weak blood vessels that some people are born with.
- **Head injury.**
- **Chronic uncontrolled high blood pressure.** Blood pressure that is too high over the long term increases your risk for stroke.
- **Very high blood pressure.** Very high blood pressure that comes on suddenly is dangerous. It is a medical emergency.

Other causes of a hemorrhagic stroke are anticoagulant and antiplatelet medicines. These medicines can cause bleeding in the brain. These medicines, also called blood thinners, increase the time it takes for a blood clot to form.

How is hemorrhagic stroke treated?

Emergency treatment is done to stop the bleeding and prevent damage to the brain.

- You may need surgery or a procedure to repair an aneurysm or to remove the blood that has built up inside the brain.
- You may be given medicine to stop the bleeding.
- You will be closely watched for signs of increased pressure on the brain. These signs include restlessness, confusion, trouble following commands, and headache.
- You may take medicine to manage high blood pressure and prevent other problems.

Ask your doctor if a stroke rehab program is right for you. Rehab can help you recover. And it may help you regain abilities that you may have lost.

How can you help prevent another stroke?

- Work with your doctor to manage other health problems, such as high blood pressure.
- Be safe with medicines. Take your medicine exactly as prescribed. Call your doctor if you think you are having a problem with your medicine.

- Have a healthy lifestyle.
 - **Do not smoke** or allow others to smoke around you. If you need help quitting, talk to your doctor about stop-smoking programs and medicines. These can increase your chances of quitting for good.
 - **Limit alcohol** to 2 drinks a day for men and 1 drink a day for women.
 - **Be active.** Ask your doctor what type and level of activity is safe for you.
 - **Eat heart-healthy foods**, like fruits, vegetables, lean meat, fish, or whole grains.
 - **Stay at a healthy weight.** Lose weight if you need to.
- Get vaccinated against COVID-19, the flu, and pneumonia.
- If you think you may have a problem with alcohol or drug use, talk to your doctor.

Follow-up care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **R416** in the search box to learn more about "**Learning About a Hemorrhagic Stroke.**"

Learning About Medicines That Lower Your Risk of Another Stroke

Overview

An important part of your treatment will be to prevent another stroke. And a big part of that is taking medicines.

Some of the medicines your doctor may have you take include:

- Aspirin or other blood thinners. They help prevent blood clots. Most strokes are caused by blood clots.
- Statins and other medicines to lower cholesterol. High cholesterol raises your stroke risk.
- Medicines for high blood pressure or diabetes. These conditions raise your stroke risk.

All medicines can cause side effects. So it is important to understand the pros and cons of any medicine you take. It is also important to take your medicines exactly as your doctor tells you to.

Be sure to tell your doctor if you take any other prescription medicine, over-the-counter medicine, vitamins, supplements, or herbal remedies.

Have a pill plan

You may have several pills to take every day. Having a plan for how you will remember to take them may help ease your fears and stress.

To make a pill plan, write a list of your medicines. Then write down the details for each one. Include when you started using each medicine, when you take it, how much you take each time (number of pills and milligrams in each pill), and any side effects.

Before you leave the hospital, be sure to ask questions if you don't understand or need help with your pill plan. And be sure you know who to call when you have questions at home.

Blood thinners

One of the best things you can do to prevent another stroke is to take a medicine called a blood thinner. These medicines don't really thin your blood. They work by helping to prevent blood clots. Blood clots can cause a stroke if they block a blood vessel in the brain. So when you prevent blood clots, you help prevent a stroke.

Antiplatelets are a type of blood thinner. They help keep platelets from sticking together and forming blood clots. (A platelet is a type of blood cell.)

Examples of antiplatelets include:

- Aspirin.
- Aspirin combined with dipyridamole.
- Clopidogrel.

Another type of blood thinner, called an anticoagulant, may be used if you have a health problem that raises your risk of blood clots.

Examples of anticoagulants include:

- Direct oral anticoagulants.
- Warfarin.

Be sure to learn how to take your medicine safely. Blood thinners can cause serious bleeding problems.

Cholesterol medicines

Statins and other cholesterol medicines can lower the amount of cholesterol in your blood. If you have too much cholesterol, it starts to build up in blood vessels. And that's how most heart and blood flow problems, including strokes, start.

Statins also reduce inflammation around the cholesterol buildup. This may lower the risk that the buildup will break apart and cause a blood clot that can lead to a stroke.

Examples of statins include:

- Atorvastatin.
- Pravastatin.
- Simvastatin.

Other cholesterol medicines that can help lower stroke risk are cholesterol absorption inhibitors and PCSK9-inhibitors.

Blood pressure medicines

If you have high blood pressure, you may take medicines to lower it. High blood pressure can damage blood vessels. This damage can lead to hardening of the arteries, which can cause a stroke.

If you were taking blood pressure pills before, your doctor may have you keep taking them. Or your doctor may have you take a different type.

Blood pressure medicines include:

- ACE (angiotensin-converting enzyme) inhibitors.
- Angiotensin II receptor blockers (ARBs).
- Diuretics (water pills).

Follow-up care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **1883** in the search box to learn more about **"Learning About Medicines That Lower Your Risk of Another Stroke."**

Learning About Risk Factors for Stroke

What puts you at risk for stroke?

Your chances of having a stroke depend on your risk factors. Some risks can be lowered with treatment and a healthy lifestyle. Others can't.

This list includes some of the risk factors for having a stroke. You and your doctor can discuss your risk and how to lower it.

Risk factors you can control with treatment

- **Atrial fibrillation.** This type of irregular heartbeat increases the risk of blood clots that could cause a stroke.
- **Atherosclerosis.** Also called hardening of the arteries, this happens when fatty deposits build up inside arteries. It can cause conditions such as carotid artery disease or coronary artery disease.
- **Diabetes.** Diabetes results in high blood sugar. Over time, high blood sugar can lead to hardening of the arteries.
- **High blood pressure.** Over time, this damages the walls of the arteries which can lead to hardening of the arteries.
- **High cholesterol.** This can lead to the buildup of fatty deposits in artery walls.
- **Other health problems.** There are many problems that raise the risk of blood clots that could cause a stroke. These include sickle cell disease and blood clotting problems.

Risk factors you can control with a heart-healthy lifestyle

- **Smoking.** Smoking, or even inhaling secondhand smoke, increases your risk of heart attack and stroke.
- **Being overweight.** This makes it more likely that you'll develop high blood pressure, heart problems, and diabetes. These conditions make a stroke more likely.
- **Drinking too much alcohol.** This means more than 2 drinks a day for men and 1 drink a day for women.
- **Not getting enough physical activity.** If you aren't active, you have a higher risk of health conditions that make a stroke more likely.
- **Not eating a heart-healthy diet.** Heart-healthy eating includes vegetables, fruits, nuts, beans, lean meat, fish, and whole grains. You limit things like sodium, alcohol, and sugar.

Risk factors you can't control

- **Having had a previous stroke or TIA (transient ischemic attack).**
- **Having a family history of stroke.** Your chances of having a stroke are higher if other people in your family have had one.
- **Being older.** The risk of stroke goes up as you age.
- **Being African American, Alaskan Native, Native American, or South Asian American.**
- **Being female.** Women have a higher risk of stroke than men.
- **Having certain problems during pregnancy.** These include gestational diabetes and preeclampsia.
- **Being past menopause.**

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **R220** in the search box to learn more about **"Learning About Risk Factors for Stroke."**

Learning About BE FAST: Stroke Warning Signs

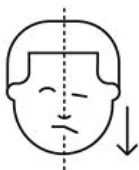
BE FAST is a simple way to remember the main symptoms of stroke. These symptoms happen suddenly. So learning what to look for helps you know when to call for medical help. BE FAST stands for:



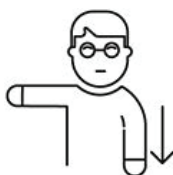
B - Balance. Loss of balance or trouble walking.



E - Eyes. Trouble seeing out of one or both eyes.



F - Face. Weakness or drooping on one side of the face.



A - Arm. Weakness or numbness in an arm or leg.



S - Speech. Trouble speaking.



T - Time to call 911. Also call **911** if you have other stroke symptoms. They include:

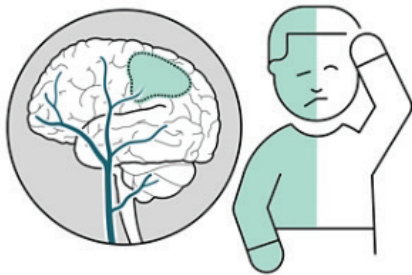
Sudden confusion.

Sudden trouble understanding simple statements.

Fainting.

A seizure.

A sudden, severe headache.



A stroke happens when a blood vessel in the brain bursts or is blocked by a blood clot. The blood supply to part of the brain—and the oxygen the blood carries—is reduced. This damages the brain.



If you have a stroke, quick treatment may save your life. And it may reduce the damage in your brain so that you have fewer problems after the stroke.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **E640** in the search box to learn more about **"Learning About BE FAST: Stroke Warning Signs."**

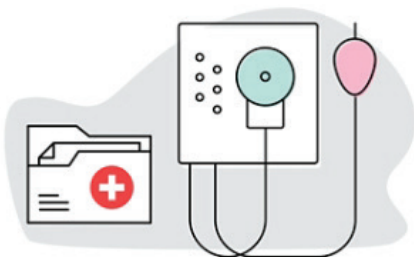
Learning About High Blood Pressure

It's normal for blood pressure to go up and down throughout the day. But if it stays up, you have high blood pressure (hypertension). High blood pressure means that your blood is pressing on your arteries with too much force. For diagnosis, the top number may be 130 to 140 or higher. The bottom number may be 80 to 90 or higher.

Usually it doesn't cause symptoms. But over time, it can cause damage. High blood pressure increases the risk of stroke, heart attack, vision loss, and dementia.

Your doctor will give you a goal for your blood pressure. Your goal will be based on your health and your age.

A healthy lifestyle, which includes eating healthy and being active, is always important to help lower blood pressure. You might also take medicine to reach your blood pressure goal.



Your doctor will give you a goal for your blood pressure. Your goal will be based on your health and age.



Eating healthy foods, not smoking, and being active can help lower blood pressure. You might also take medicine to reach your blood pressure goal.

Tips for preventing high blood pressure



Stay at a healthy weight. Talk to your doctor about what a healthy weight is for you.



Limit salt (sodium). Use no or less salt in recipes. And buy foods labeled "unsalted," "sodium-free," or "low-sodium." Foods labeled "reduced-sodium" and "light sodium" may still have too much sodium.



Find new ways to flavor food. Try garlic, lemon juice, onion, vinegar, herbs, and spices instead of salt. Avoid things like soy sauce, steak sauce, mustard, and ketchup.



Get at least 30 minutes of exercise on most days of the week. Walking is a good choice. Swimming, running, or team sports may also work for you.



Limit alcohol. Men should have no more than 2 drinks a day. Women should have no more than 1.

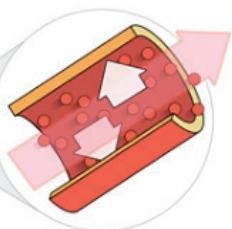


Eat plenty of fruits, vegetables, and low-fat dairy products. Eat less saturated fat (like red meat and full fat dairy), and limit sweets and sugary beverages.

Understanding the numbers

120

80



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Two numbers tell you your blood pressure. The first (top) number shows how hard the blood pushes on your artery walls when your heart pumps.

120

80



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The second (bottom) number shows how hard the blood pushes on your artery walls between heartbeats, when your heart relaxes.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **P501** in the search box to learn more about **"Learning About High Blood Pressure."**

DASH Diet: Care Instructions



Your Care Instructions

The DASH diet is an eating plan that can help lower your blood pressure. DASH stands for Dietary Approaches to Stop Hypertension. Hypertension is high blood pressure.

The DASH diet focuses on eating foods that are high in calcium, potassium, and magnesium. These nutrients can lower blood pressure. The foods that are highest in these nutrients are fruits, vegetables, low-fat dairy products, nuts, seeds, and legumes. But taking calcium, potassium, and magnesium supplements instead of eating foods that are high in those nutrients does not have the same effect. The DASH diet also includes whole grains, fish, and poultry.

The DASH diet is one of several lifestyle changes your doctor may recommend to lower your high blood pressure. Your doctor may also want you to decrease the amount of sodium in your diet. Lowering sodium while following the DASH diet can lower blood pressure even further than just the DASH diet alone.

Follow-up care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

How can you care for yourself at home?

Following the DASH diet

- Eat 4 to 5 servings of **fruit** each day. A serving is 1 medium-sized piece of fruit, 1/2 cup raw or canned fruit, 1/4 cup dried fruit, or 4 ounces (1/2 cup) of fruit juice. Choose fruit more often than fruit juice.
- Eat 4 to 5 servings of **vegetables** each day. A serving is 1 cup of lettuce or raw leafy vegetables, 1/2 cup of chopped or cooked vegetables, or 4 ounces (1/2 cup) of vegetable juice. Choose vegetables more often than vegetable juice.
- Get 2 to 3 servings of **low-fat and fat-free dairy** each day. A serving is 8 ounces of milk, 1 cup of yogurt, or 1½ ounces of cheese.
- Eat 6 to 8 servings of **grains** each day. A serving is 1 slice of bread, 1 ounce of dry cereal, or 1/2 cup of cooked rice, pasta, or cooked cereal. Try to choose whole-grain products as much as possible.
- Limit **lean meat, poultry, and fish** to 6 ounces or less each day. One egg counts as 1 ounce.
- Eat 4 to 5 servings of **nuts, seeds, and legumes** (cooked dried beans, lentils, and split peas) each week. A serving is 1/3 cup of nuts, 2 tablespoons of seeds, 2 tablespoons of peanut butter, or 1/2 cup of cooked beans or peas.
- Limit fats and oils to 2 to 3 servings each day. A serving is 1 teaspoon of vegetable oil or 2 tablespoons of salad dressing.
- Limit sweets and added sugars to 5 servings or less a week. A serving is 1 tablespoon jelly or jam, 1/2 cup sorbet, or 1 cup of lemonade.
- Eat less than 2,300 milligrams (mg) of sodium a day. If you limit your sodium to 1,500 mg a day, you can lower your blood pressure even more.
- Be aware that all of these are the suggested number of servings for people who eat 1,800 to 2,000 calories a day. Your recommended number of servings may be different if you need more or fewer calories.

Tips for success

- Start small. Make small changes, and stick with them. Once those changes become habit, add a few more changes.
- Try some of the following:
 - Make it a goal to eat a fruit or vegetable at every meal and at snacks. This will make it easy to get the recommended amount of fruits and vegetables each day.
 - Try yogurt topped with fruit and nuts for a snack or healthy dessert.
 - Add lettuce, tomato, cucumber, and onion to sandwiches.
 - Have a variety of cut-up vegetables with a low-fat dip as an appetizer instead of chips and dip.
 - Sprinkle sunflower seeds or chopped almonds over salads. Or try adding chopped walnuts or almonds to cooked vegetables.
 - Try some vegetarian meals using beans and peas. Add garbanzo or kidney beans to salads. Make burritos and tacos with mashed pinto beans or black beans.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **H967** in the search box to learn more about **"DASH Diet: Care Instructions."**

Learning About the Risk of Heart Attack and Stroke With Diabetes



How are diabetes, heart attack, and stroke connected?

For some people, diabetes can cause problems that increase the risk of a heart attack or stroke.

Many things can lead to a heart attack or stroke. These include high blood sugar, insulin resistance, high cholesterol, and high blood pressure. Lifestyle and genetics may also play a part.

But here's the good news: The things you're doing to stay healthy with diabetes also help your heart and blood vessels. That means eating healthy foods, quitting smoking, getting exercise, and staying at a healthy weight.

What increases your risk for heart attack and stroke?

When you have diabetes, your risk for heart attack and stroke is even higher if you have:

- **High blood pressure.** It pushes blood through the arteries with too much force. Over time, this damages the walls of the arteries.
- **High cholesterol.** It causes the buildup of a kind of fat inside the blood vessel walls. This buildup can lower blood flow to the heart muscle and raise your risk for having a heart attack or stroke.
- **Kidney damage.** It shares many of the risk factors for heart attack and stroke (such as high blood sugar, high blood pressure, and high cholesterol).

How do you keep your heart healthy when you have diabetes?

Managing your diabetes and keeping your heart and blood vessels healthy are both important. Here are some things you can do.

- Test your blood sugar levels and get your diabetes tests on schedule.
Try to keep your numbers within your target range.
- Keep track of your blood pressure.
Your doctor will give you a goal that's right for you. If your blood pressure is high, your treatment may also include medicine. Changes in your lifestyle, such as staying at a healthy weight, may also help you lower your blood pressure.
- Eat heart-healthy foods.
These include vegetables, fruit, nuts, beans, lean meat, fish, and whole grains. Limit sodium, alcohol, and sugar.

- Work with your doctor or diabetes educator to learn which exercises are safe for you.
Walking is a good choice. Bit by bit, increase the amount you walk every day. Try for at least 30 minutes on most days of the week.
- Don't smoke.
Smoking can make diabetes worse and increase your risk of heart attack or stroke. If you need help quitting, talk to your doctor about stop-smoking programs and medicines. These can increase your chances of quitting for good.
- Take medicines as directed by your doctor.
For example, your doctor may suggest taking a statin or daily aspirin. Some diabetes medicine can also lower your risk for heart attack and stroke.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **K649** in the search box to learn more about "**Learning About the Risk of Heart Attack and Stroke With Diabetes.**"

Learning About the Mediterranean Diet



What is the Mediterranean diet?

The Mediterranean diet is a style of eating rather than a diet plan. It features foods eaten in Greece, Spain, southern Italy and France, and other countries along the Mediterranean Sea. It emphasizes eating foods like fish, fruits, vegetables, beans, high-fiber breads and whole grains, nuts, and olive oil. This style of eating includes limited red meat, cheese, and sweets.

Why choose the Mediterranean diet?

A Mediterranean-style diet may improve heart health. It contains more fat than other heart-healthy diets. But the fats are mainly from nuts, unsaturated oils (such as fish oils and olive oil), and certain nut or seed oils (such as canola, soybean, or flaxseed oil). These fats may help protect the heart and blood vessels.

How can you get started on the Mediterranean diet?

Here are some things you can do to switch to a more Mediterranean way of eating.

What to eat

- Eat a variety of fruits and vegetables each day, such as grapes, blueberries, tomatoes, broccoli, peppers, figs, olives, spinach, eggplant, beans, lentils, and chickpeas.
- Eat a variety of whole-grain foods each day, such as oats, brown rice, and whole wheat bread, pasta, and couscous.
- Eat fish at least 2 times a week. Try tuna, salmon, mackerel, lake trout, herring, or sardines.
- Eat moderate amounts of low-fat dairy products, such as milk, cheese, or yogurt.
- Eat moderate amounts of poultry and eggs.
- Choose healthy (unsaturated) fats, such as nuts, olive oil, and certain nut or seed oils like canola, soybean, and flaxseed.
- Limit unhealthy (saturated) fats, such as butter, palm oil, and coconut oil. And limit fats found in animal products, such as meat and dairy products made with whole milk. Try to eat red meat only a few times a month in very small amounts.
- Limit sweets and desserts to only a few times a week. This includes sugar-sweetened drinks like soda.

The Mediterranean diet may also include red wine with your meal—1 glass each day for women and up to 2 glasses a day for men.

Tips for eating at home

- Use herbs, spices, garlic, lemon zest, and citrus juice instead of salt to add flavor to foods.
- Add avocado slices to your sandwich instead of bacon.
- Have fish for lunch or dinner instead of red meat. Brush the fish with olive oil, and broil or grill it.
- Sprinkle your salad with seeds or nuts instead of cheese.
- Cook with olive or canola oil instead of butter or oils that are high in saturated fat.
- Switch from 2% milk or whole milk to 1% or fat-free milk.
- Dip raw vegetables in a vinaigrette dressing or hummus instead of dips made from mayonnaise or sour cream.
- Have a piece of fruit for dessert instead of a piece of cake. Try baked apples, or have some dried fruit.

Tips for eating out

- Try broiled, grilled, baked, or poached fish instead of having it fried or breaded.
- Ask your server to have your meals prepared with olive oil instead of butter.
- Order dishes made with marinara sauce or sauces made from olive oil. Avoid sauces made from cream or mayonnaise.
- Choose whole-grain breads, whole wheat pasta and pizza crust, brown rice, beans, and lentils.
- Cut back on butter or margarine on bread. Instead, you can dip your bread in a small amount of olive oil.
- Ask for a side salad or grilled vegetables instead of french fries or chips.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **O407** in the search box to learn more about **"Learning About the Mediterranean Diet."**

Learning About Emotional Changes After a Stroke

Overview

After a stroke, many people feel different without knowing why. For example, some people find it hard to control their emotions. They may cry or laugh for no reason. Or they may feel down or even hopeless.

Some people may find they're acting differently. They may act too quickly or on impulse. Or they may be more anxious and hesitant at times.

If these changes happen to you, they can be upsetting. And they can be confusing to you and your loved ones. But these changes may get better with time as your brain heals.

Let your loved ones know what's happening. Their support and understanding can help you deal with these feelings. And with time and support from the people around you, you can learn ways to adjust to life after a stroke.

How can a stroke affect your emotions?

After a stroke, some people feel like they have lost control of their emotions. These feelings can come from one or both of two causes.

A stroke can affect parts of the brain that control how you feel. You may have emotional reactions that are different from your normal ones. For example, you may have fits of crying or laughing that are out of your control.

Also, a stroke can leave you with upsetting body changes that take away some of your independence. For example, some people may feel:

- Sad or angry about the loss of the lifestyle they had before.
- Isolated by speech and language problems.
- Frustrated by the slow pace of recovery.
- Worried about the future.

These feelings are normal and expected. But if you think you might be depressed, tell your doctor right away. The sooner you know if you are depressed, the sooner you can get treatment.

How can you deal with your emotions after a stroke?

To deal with your emotions:

- Be easy on yourself. Let go of mistakes.
- Give yourself credit for the progress you have made.
- Make time for things that you enjoy.
- Join a stroke support group. Your rehab team or local hospital can help you find one.

Is depression common?

It is common to feel sad about changes caused by the stroke. Sometimes the injury to the brain from the stroke can cause depression.

If you think you might be depressed, tell your doctor right away. The sooner you know if you are depressed, the sooner you can get treatment. Treatment can help you feel better.

Your doctor will want to know if in the past 2 weeks:

- You have lost interest or pleasure in doing things.
- You have been feeling sad, hopeless, or empty.

Your doctor may also ask about sleep troubles or changes in eating.

How can friends and family help?

Your loved ones can help you by following these tips:

- A person who has had a stroke may tend to have strong emotional reactions. Remember that these are a result of the stroke. Try not to become too upset by them.
- Don't avoid a loved one who's had a stroke. Contact with and support from family members is very important to recovery.
- Watch for signs of depression in people who have had a stroke. Urge them to talk to their doctor if they think they might be depressed.

Follow-up care is a key part of your treatment and safety. Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

Where can you learn more?

Go to <https://www.healthwise.net/wellspan>

Enter **E171** in the search box to learn more about **"Learning About Emotional Changes After a Stroke."**

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Notes

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Stroke Warning Signs

B

BALANCE

Sudden loss
of balance

E

EYES

Sudden loss
of vision

F

FACE

One side of the
face is drooping

A

ARM

Weakness or
numbness on
one side

S

SPEECH

Slurred, garbled
or not able to get
words out

T

TIME

Terrible headache
Time to call 911

Know the Signs and BE FAST!



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