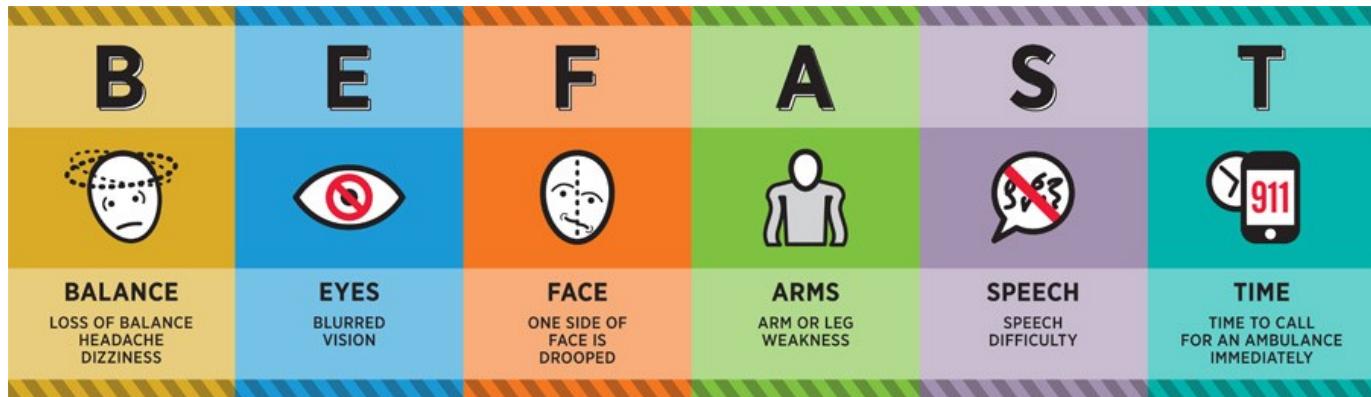


# Stroke Education Packet



Upon your admission and throughout your stay, your health care team will review the contents of this packet as it pertains to you.

**Don't hesitate to ask questions!**

<input type="checkbox"/> Risk Factors for Stroke	<input type="checkbox"/> Lifestyle Changes
<input type="checkbox"/> Stroke, TIA and Warning Signs	<input type="checkbox"/> How Can I quit Smoking
<input type="checkbox"/> EMS Activation ( <i>Emergency Treatment</i> )	<input type="checkbox"/> Family Caregivers
<input type="checkbox"/> Physician Follow-up	<input type="checkbox"/> Emotional Changes
<input type="checkbox"/> Discharge Medications	<input type="checkbox"/> Stroke and Aphasia
<input type="checkbox"/> Stroke diagnosis	<input type="checkbox"/> Living at Home After Stroke
<input type="checkbox"/> Ischemic Stroke	<input type="checkbox"/> Driving After Stroke
<input type="checkbox"/> Hemorrhagic Stroke	<input type="checkbox"/> Managing Stress
<input type="checkbox"/> Changes Caused by Stroke	<input type="checkbox"/> Rehabilitation
<input type="checkbox"/> High Blood Pressure	<input type="checkbox"/> Hilo Stroke Support Group
<input type="checkbox"/> Diabetes	<input type="checkbox"/> EMS Activation ( <i>Calling 9-1-1</i> )

Hilo  Medical Center  
*Becca Moore*

Stroke/STEMI Coordinator  
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## let's talk about **Risk Factors**

*Knowing your risk factors for stroke is the first step in preventing a stroke. You can change or treat some risk factors, but others you can't. By having regular medical checkups and knowing your risk, you can focus on what you can change and lower your risk of stroke.*



### **WHAT RISK FACTORS CAN I CHANGE OR TREAT?**

**High blood Pressure:** This is the single most important risk factor for stroke because it's the leading cause of stroke. Know your blood pressure and have it checked every year. Normal blood pressure is below 120/80. If you have been told that you have high blood pressure, work with your healthcare provider to reduce it.

**Smoking:** Smoking damages blood vessels. This can lead to blockages within those blood vessels, causing a stroke. Don't smoke and avoid second-hand smoke.

**Diabetes:** Having diabetes more than doubles your risk of stroke. Work with your doctor to manage diabetes.

**High cholesterol:** High cholesterol increases the risk of blocked arteries. If an artery leading to the brain becomes blocked, a stroke can result. Physical inactivity and obesity. Being inactive, obese, or both, can increase your risk of heart disease and stroke.

**Carotid or other artery disease:** The carotid arteries in your neck supply most of the blood to your brain. A carotid artery damaged by a fatty buildup of plaque inside the artery wall may become blocked by a blood clot. This

causes a stroke.

### **Transient ischemic attacks (TIAs):**

Recognizing and treating TIAs can reduce the risk of a major stroke. TIAs produce stroke-like symptoms but most have no lasting effects. Know the warning signs of a TIA and seek emergency medical treatment immediately.

**Atrial Fibrillation (AFib) or other heart disease:** In AFib the heart's upper chambers quiver (like a bowl of gelatin) rather than beating in an organized, rhythmic way. This can cause the blood to pool and clot, increasing the risk of stroke. AFib increases risk of stroke five times. People with other types of heart disease have a higher risk of stroke, too.

**Certain blood disorders:** A high red blood cell count makes clots more likely, raising the risk of stroke. Sickle cell anemia increases stroke risk because the "sickled" cells stick to blood vessel walls and may block arteries.

**Excessive alcohol intake:** Drinking an average of more than one drink per day for women or more than two drinks a day for men can raise blood pressure. Binge drinking can lead to stroke.

*(continued)*



**Illegal drug use.** Drugs including cocaine, ecstasy amphetamines, and heroin are associated with an increased risk of stroke.

**Sleep apnea.** Sleep disordered breathing contributes to risk of stroke. Increasing sleep apnea severity is associated with increasing risk.

**WHAT ARE THE RISK FACTORS I CAN'T CONTROL?** **Increasing age.** Stroke affects people of all ages. But the older you are, the greater your stroke risk.

**Gender.** Women have a higher lifetime risk of stroke than men do. Use of birth control pills and pregnancy pose special stroke risks for women.

**Heredity and race.** People whose close blood relations have had a stroke have a higher risk of stroke. African Americans have a higher risk of death and disability from stroke than whites. This is because they have high blood

pressure more often. Hispanic Americans are also at higher risk of stroke.

**Prior stroke.** Someone who has had a stroke is at higher risk of having another one.



### 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:

- **What are my risk factors for stroke?**
- **What are the warning signs of TIAs and stroke?**

### HOW CAN I LEARN MORE?

1. Call 1-888-4-STROKE (1-888-478-7653) to learn more about stroke or to find local support groups, or visit [StrokeAssociation.org](http://StrokeAssociation.org)
2. Sign up to get *Stroke Connection* magazine, a free magazine for stroke survivors and caregivers at [strokeconnection.org](http://strokeconnection.org)
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Updated 12/1/2020



## let's talk about **Stroke, TIA and Warning Signs**

*Stroke occurs when a blood vessel bringing blood and oxygen to the brain gets blocked by a clot or ruptures. When this happens, brain cells don't get the blood and oxygen that they need to survive. This causes nerve cells stop working and die within minutes. Then, the part of the body they control are affected. The effects of Stroke may be permanent depending on how many cells are lost, where they are in the brain, and other factors. Strokes can cause weakness (paralysis), affect language and vision, and cause other problems. Stroke is the No. 5 cause of death and a leading cause of serious, long-term disability in America.*



**WHAT IS A TIA?** TIA, or transient ischemic attack, is a “minor or mini stroke” that occurs when a blood clot blocks an artery for a short time. The symptoms of a TIA are the same as those of a stroke, but they usually last only a few minutes. About 15 percent of major strokes are preceded by TIAs, so don’t ignore a TIA. **Call 9-1-1 or seek emergency medical attention immediately!**

**IS STROKE PREVENTABLE?** Yes. Stroke is largely preventable. You can reduce your stroke risk by living a healthy lifestyle — controlling high blood pressure; not smoking; eating a healthy diet low in saturated and trans fats; being physically active; maintaining a healthy body weight; managing diabetes; and drinking alcohol moderately or not at all.

**CAN STROKE BE TREATED?** If you’re having a stroke, time is critical. Immediate treatment may minimize the long-term effects of a stroke and even prevent death. Treatment will vary depending on what type of stroke you had.

There is a clot-dissolving drug called IV Alteplase (tPA) to treat stroke. It can stop a stroke in

progress and reduce disability from stroke by breaking up a blood clot that might be stopping the flow of blood to the brain. To be eligible for Alteplase, you must seek emergency treatment right away and have a clot-caused stroke. It must be given within 3 to 4.5 hours after symptoms start. The sooner it is given, the greater the possibility of a better outcome.

Another treatment option is called a mechanical thrombectomy. In this procedure, specially trained doctors try to remove the blood clot by using a wire-cage device called a **stent retriever**. To remove the clot, doctors thread a catheter (thin tube) with a stent through an artery in the groin up to the blocked artery in the brain. The stent opens and grabs the clot. The doctors then remove the stent with the trapped clot. This must be done within six hours to 24 hours of the first symptoms of stroke and only after the patient has received IV Alteplase. Patients must meet certain criteria to be eligible for this procedure.

(continued)



### WHAT ARE THE WARNING SIGNS OF STROKE?

You and your family should recognize the warning signs of stroke. You may have some or all of these signs. Note the time when symptoms start and call 9-1-1 or the emergency medical number in your area immediately. Don't ignore these warning signs, even if they go away. Stroke is a medical emergency! Don't ignore these warning signs, even if they go away.

### **STROKE WARNING SIGNS:**

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body.
- Sudden confusion, trouble speaking or understanding.
- Sudden trouble seeing in one or both eyes.
- Sudden trouble walking, dizziness, loss of balance or coordination.
- Sudden severe headache with no known cause.



**F.A.S.T.** is an easy way to remember how to recognize a stroke and what to do. Spot a stroke FAST.

**Face drooping. Arm weakness.**

**Speech difficulty. Time to call 9-1-1.**



### 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:

- **Which facility close to me is best equipped to treat me if I am having stroke symptoms?**
- **How can I reduce my risk for stroke?**

### HOW CAN I LEARN MORE?

1. Call 1-888-4-STROKE (1-888-478-7653) to learn more about stroke or to find local support groups, or visit [StrokeAssociation.org](http://StrokeAssociation.org)
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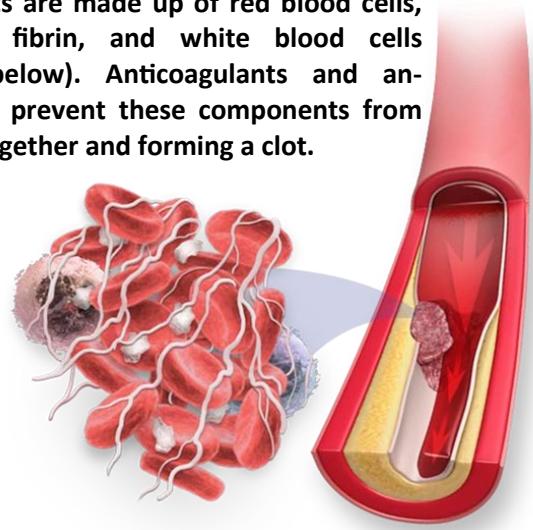
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## let's talk about **Anticoagulants and Antiplatelet Agents**

*Anticoagulants and antiplatelet agents are medicines that reduce blood clotting in an artery, vein or the heart. Blood clots can block the blood flow to your heart muscle and cause a heart attack. They can also block blood flow to your brain, causing a stroke. Doctors use these medicines to help patients prevent strokes caused by a blood clot.*

Blood clots are made up of red blood cells, platelets, fibrin, and white blood cells (shown below). Anticoagulants and antiplatelets prevent these components from sticking together and forming a clot.



### **WHAT SHOULD I KNOW ABOUT ANTICOAGULANTS?**

Anticoagulants (sometimes known as “blood thinners”) are medicines that delay the clotting of blood. Examples are heparin, warfarin, dabigatran, apixaban, and rivaroxaban.

Anticoagulants make it harder for clots to form or keep existing clots from growing in your heart, veins or arteries. Treatment should be managed by your healthcare provider.

- Follow your doctor’s (or other healthcare provider’s) instructions.
- If you take warfarin or heparin, have regular blood tests so your doctor can tell how the medicine is working.
  - The test for people on warfarin is called a prothrombin time (PT) or International Normalized Ratio (INR) test.
  - The test for persons on heparin is called an activated partial thromboplastin time (PTT) test.
- Never take aspirin with anticoagulants unless your doctor tells you to.
- You must tell other healthcare providers that you’re taking anticoagulants.
- Always check with your doctor before

taking other medicines or supplements, such as aspirin, vitamins, cold medicine, pain medicine, sleeping pills or antibiotics. These can affect the way anticoagulants work by strengthening or weakening them.

- Let your doctor know if you have been started on any new medications that might interfere with the action of warfarin.
- Discuss your diet with your healthcare providers. Foods rich in Vitamin K can reduce the effectiveness of warfarin. Vitamin K is found in leafy, green vegetables, fish, liver, lentils, soybeans, and some vegetable oils.
- Tell your family that you take anticoagulant medicine and carry your emergency medical ID card with you.

**COULD ANTICOAGULANTS CAUSE PROBLEMS?** If you do as your doctor tells you, there probably won’t be problems. But you must tell your doctor right away if:

- Your urine turns pink or red. This could be a sign of urinary tract bleeding.

*(continued)*



- Your stools turn red, dark brown or black. This could be a sign of intestinal bleeding.
- You bleed more than normal when you have your period.
- Your gums bleed.
- You have a very bad headache or stomach pain that doesn't go away.
- You get sick or feel weak, faint or dizzy.
- You think you're pregnant.
- You find bruises or blood blisters.
- You have an accident of any kind.

**WHAT SHOULD I KNOW ABOUT ANTIPLATELET AGENTS?** Antiplatelet medicines keep blood clots from forming by preventing blood platelets from sticking together. They are used to treat patients with atherosclerosis or with increased clotting tendencies. In atherosclerosis deposits of cholesterol (plaque) form along inner walls of blood vessels, creating the conditions for blood clots to form on top of the plaque, blocking the blood vessel. Many heart attack and stroke patients — and people seeking to avoid these events — are

treated with two types of antiplatelet agents to prevent blood clotting: aspirin and a PSY<sub>12</sub> inhibitor. This is called dual antiplatelet therapy (DAPT).

Almost everyone with coronary artery disease, including those who have had a heart attack, stent, or CABG, are treated with aspirin for the rest of their lives. Aspirin can help prevent an ischemic stroke. It can also help if you have had a TIA or if you have heart problems.

PSY<sub>12</sub> inhibitors are usually prescribed for months of years in addition to the aspirin therapy. You may be prescribed one of three of these medications — clopidogrel, prasugrel, or ticagrelor. Prasugrel should not be prescribed if you have had a stroke or a transient ischemic attack (TIA). Which one of these your doctor prescribes will be based on what he or she feels is best for you, based on your risk of blood clots and bleeding.

## 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:

- **What kind of aspirin or other antiplatelet agent should I take?**
- **What is the right dose for me?**

## HOW CAN I LEARN MORE?

1. Call 1-888-4-STROKE (1-888-478-7653) to learn more about stroke or to find local support groups, or visit [StrokeAssociation.org](http://StrokeAssociation.org)
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Updated 12/1/2020

## let's talk about **Stroke Diagnosis**

*It's critical to diagnose a stroke in progress because the treatment for stroke depends on the type of stroke, and, in some cases, the location of the injury to the brain.*

*Other conditions with similar symptoms to stroke and transient ischemic attack (TIA) will need to be ruled out to diagnose stroke. Some of these include seizures, fainting, migraine headaches, drug overdose, heart problems or other general medical conditions.*

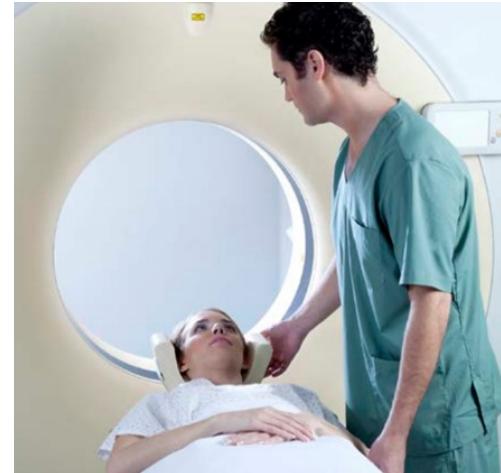
**HOW IS A STROKE DIAGNOSED?** The type of stroke must be determined. Ischemic strokes are caused by a blocked artery in the brain. A ruptured blood vessel causes a hemorrhagic stroke. Treatment for ischemic stroke is different than it is for a hemorrhagic stroke.

Ischemic strokes may be treated with a clot-busting drug, called IV Alteplase (tPA). So, it's important to receive a correct diagnosis before treatment begins. To receive IV Alteplase, a doctor must diagnose your stroke as an ischemic stroke and treat you within 3 to 4.5 hours of the onset of stroke symptoms. This treatment usually takes place in the hospital emergency department. If more than 4.5 hours passes, it can't be given.

For people with blood clots in larger arteries, Altaplase may not dissolve them completely. In this case, a procedure, called mechanical thrombectomy, should be done within six to 24 hours of the first symptoms of stroke. Patients must meet certain criteria to be eligible for this procedure.

In the emergency room, your doctor or stroke emergency team may:

- Ask you when the symptoms of the stroke started. This is critical in determining what



A CT or "CAT" scan is usually one of the first tests used to diagnose stroke.

treatment is best for you.

- Ask you about your medical history.
- Do a physical and neurological examination.
- Have certain lab (blood) tests done.
- Do a CT (computed tomography) or MRI (magnetic resonance imaging) brain scan. This determines what kind of stroke a person has had.
- Study the results of other diagnostic tests that might be needed.

### **WHAT ARE THE TYPES OF DIAGNOSTIC TESTS?**

Diagnostic tests examine how the brain looks, works and gets its blood supply. Most are safe and painless. These tests fall into two categories: 1) imaging tests and 2) blood flow tests.

#### **IMAGING TESTS:**

- CT (COMPUTED TOMOGRAPHY) OR CAT SCAN.** It uses radiation to create a picture (like an X-ray) of the brain. It's usually one of the first tests given to a patient with stroke symptoms. CT test results give valuable information about the cause of stroke and the location and extent of brain injury.

(continued)



- **MRI (MAGNETIC RESONANCE IMAGING).**

This test uses a large magnetic field to produce an image of the brain. Like the CT scan, it shows the location and extent of brain injury. The image produced by MRI is sharper and more detailed than a CT scan, so it's often used to diagnose small, deep injuries.

- **CTA (COMPUTED TOMOGRAPHIC ANGIOGRAPHY).** In CTA, a special contrast material (dye) is injected into a vein and images are taken of the blood vessels to look for abnormalities such as an aneurysm.

- **MRA (MAGNETIC RESONANCE ANGIOGRAPHY).** In this test, the blood vessels are imaged through a magnetic resonance scanner to locate cerebral aneurysm.

Additional advanced tests that may be done include CT perfusion, diffusion-weighted MRI or MRI perfusion.

### **BLOOD FLOW TESTS:**

These tests give information about the condition of arteries in your head and neck

that supply blood to your brain.

- **CEREBRAL ANGIOGRAPHY (OR CEREBRAL ARTERIOGRAPHY).** Special substances are injected into the blood vessels and an X-ray is taken. This test gives a picture of the blood flow through the vessels. This allows the size and location of blockages to be reviewed. This test is very valuable in diagnosing aneurysms and malformed blood vessels.



### **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:

- **Do these tests cause any complications?**

### **HOW CAN I LEARN MORE?**

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Updated 12/1/2020



## let's talk about **Ischemic Stroke**

The majority of strokes occur when blood vessels to the brain become narrowed or clogged with fatty deposits called plaque. This cuts off blood flow to brain cells. A stroke caused by lack of blood reaching part of the brain is called an ischemic stroke. High blood pressure is a leading risk factor for ischemic stroke that you can change.

### ARE ALL ISCHEMIC STROKES THE SAME?

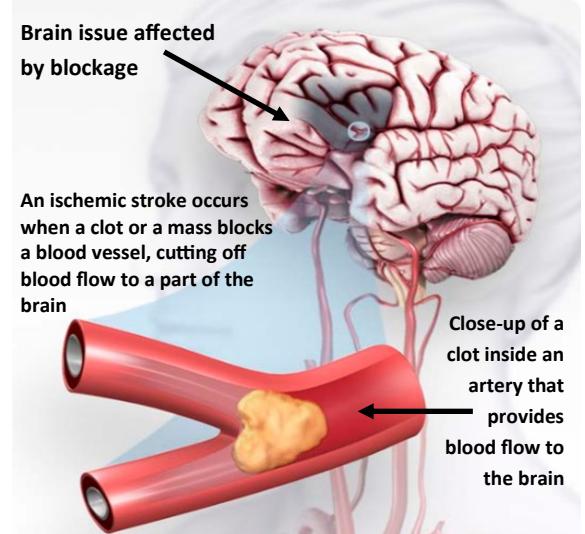
There are two types of ischemic strokes:

- **Thrombotic strokes** are caused by a blood clot (thrombus) in an artery going to the brain. The clot blocks blood flow to part of the brain. Blood clots usually form in arteries damaged by plaque.
- **Embolic strokes** are caused by a wandering clot (embolus) that's formed elsewhere (usually in the heart or neck arteries). Clots are carried in the bloodstream and block a blood vessel in or leading to the brain.

### HOW ARE ISCHEMIC STROKES DIAGNOSED?

When someone has shown symptoms of a stroke or a TIA (transient ischemic attack), a doctor will gather information and make a diagnosis. He or she will review the events that have occurred and will:

- Get a medical history from you or a family member.
- Do a physical and neurological examination.
- Have certain lab (blood) tests done.
- Get a CT (computed tomography) or MRI (magnetic resonance imaging) scan of the brain.
- Study the results of other diagnostic tests that might be needed.



### HOW ARE ISCHEMIC STROKES TREATED?

**Acute treatment** is the immediate treatment given by the healthcare team when a stroke happens. The goal of acute treatment is to keep the amount of brain injury as small as possible. This is done by restoring blood flow to the part of the brain where the blockage was quickly.

There is a clot-dissolving drug called IV Alteplase (tPA) to treat stroke. It can stop a stroke in progress and reduce disability from stroke by breaking up a blood clot that might be stopping the flow of blood to the brain.

To be eligible for Alteplase, you must seek emergency treatment right away and have a clot-caused stroke. It must be given within 3 to 4.5 hours after symptoms start. Medication may also be used to treat brain swelling that sometimes occurs after a stroke.

For people with blood clots in larger arteries, Alteplase may not dissolve them completely. In this case, a procedure, called **mechanical thrombectomy**, should be done within six to 24 hours of the first symptoms of stroke. In most cases this is done only after the patient receives IV Alteplase.

(continued)

## let's talk about **stroke**



## PREVENTION

To remove the clot, doctors thread a catheter (thin tube) with a stent through an artery in the groin up to the blocked artery in the brain. The stent opens and grabs the clot. The doctors then remove the stent with the trapped clot. If necessary, other devices may also be used. Patients must meet certain criteria to be eligible for this procedure.

When someone has a stroke, they are at risk of another. Once the medical team identifies what caused the stroke, they may prescribe treatments or procedures to reduce the risk of a second stroke, such as:

- Antiplatelet agents, such as aspirin and clopidogrel, and anticoagulants interfere with the blood's ability to clot. This can play an important role in preventing a stroke.
- Carotid endarterectomy is a procedure in which blood vessel blockage (blood clot or fatty plaque) is surgically removed from the carotid artery in the neck. This reopens the artery and the blood flow to the brain. This is only done in people who have a large

- blockage.
- Doctors sometimes use balloon angioplasty and implantable steel screens called stents to treat and reduce fatty buildup clogging a vessel that may make it easy for clots to form in the bloodstream.

Sometimes a stroke is the first sign a person has of other health conditions, such as high blood pressure, diabetes, atrial fibrillation (a heart rhythm disorder), or other vascular disease. If any of these are diagnosed, the healthcare team will prescribe appropriate treatment.



Aspirin can play an important role in preventing stroke because it helps keep blood from clotting.

## 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:

- **What are my risk factors for stroke?**
- **What are the warning signs of TIAs and stroke?**

We have many other fact sheets to help you make healthier choices to reduce your risk, manage disease or care for a loved one.

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Updated 12/1/2020

## Ischemic Stroke

## HOW CAN I LEARN MORE?

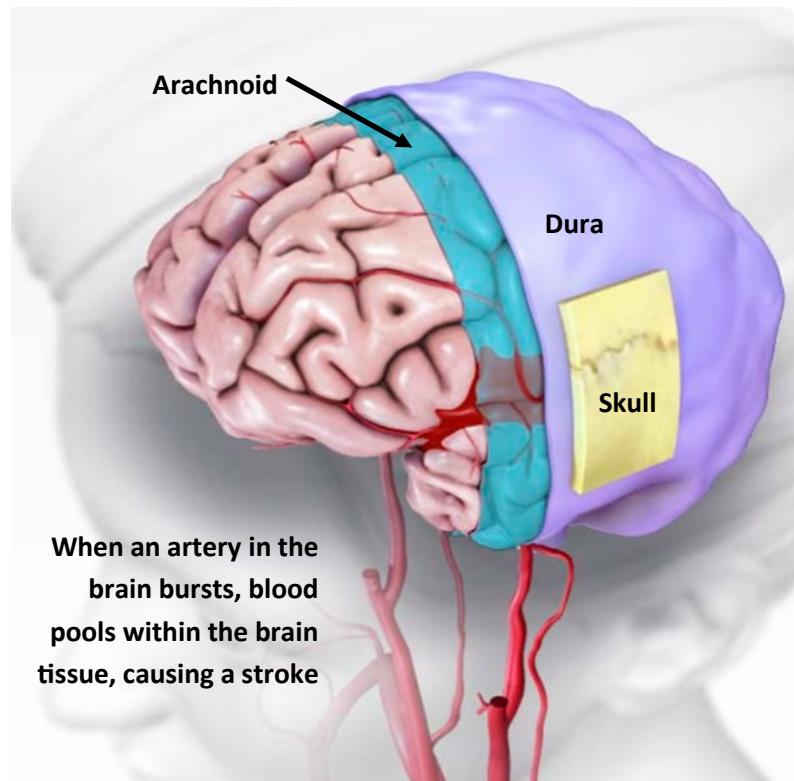
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## let's talk about **Hemorrhagic Stroke**

*About 13 percent of strokes happen when a blood vessel ruptures in or near the brain. This is called hemorrhagic stroke as shown at right.*

*When a hemorrhagic stroke happens, blood collects in the brain tissue. This is toxic for the brain tissue causing the cells in that area to weaken and die.*



**A type of hemorrhagic stroke, known as a subarachnoid hemorrhage, can occur when an aneurysm (a blood-filled pouch that balloons out from an artery) on or near the surface of the brain ruptures, flooding the space between the skull and the brain with blood.**

### **ARE ALL HEMORRHAGIC STROKES THE SAME?**

There are two kinds of hemorrhagic stroke. In both, a blood vessel ruptures, disrupting blood flow to part of the brain.

#### **Intracerebral hemorrhages (most common type of hemorrhagic stroke):**

- Occur when a blood vessel bleeds or ruptures into the tissue deep within the brain.
- Are most often caused by chronically high blood pressure or aging blood vessels.
- Are sometimes caused by an arteriovenous malformation (AVM). An AVM is a cluster of abnormally formed blood vessels. Any one of these vessels can rupture, also causing bleeding into the brain.

#### **Subarachnoid hemorrhages:**

- Occur when an aneurysm (a blood-filled pouch that balloons out from an artery) on or near the surface of the brain ruptures

and bleeds into the space between the brain and the skull.

- Are often caused by high blood pressure.

In addition to high blood pressure, factors that increase the risk of hemorrhagic strokes include:

- Cigarette smoking
- Use of oral contraceptives (particularly those with high estrogen content)
- Excessive alcohol intake
- Use of illegal drugs

*(continued)*

## let's talk about **stroke**



## PREVENTION

### HOW ARE HEMORRHAGIC STROKES DIAGNOSED?

When someone has shown symptoms of a stroke or a TIA (transient ischemic attack), a doctor will gather information and make a diagnosis. He or she will review the events that have occurred and will:

- Get a medical history
- Do a physician and neurological examination
- Have certain laboratory (blood) tests done
- Get a CT or MRI scan of the brain
- Study the results of other diagnostic tests that might be needed.

Diagnostic tests examine how the brain looks, works and gets its blood supply. They can outline the injured brain area. Diagnostic tests examine how the brain looks, works and gets its blood supply. They can outline the injured brain area. Diagnostic tests fall into three categories.

- Imaging tests give a picture of the brain similar to X-rays
- Electrical tests record the electrical impulses of the brain (also called an EEG)
- Blood flow tests show any problem that may cause changes in the blood flow to the brain.

### 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:

- **What can I do to help prevent another stroke?**
- **How can I control high blood pressure?**

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Updated 12/1/2020

## Hemorrhagic Stroke

- **Get a medical history**
- **Do a physician and neurological examination**
- **Have certain laboratory (blood) tests done**
- **Get a CT or MRI scan of the brain**
- **Study the results of other diagnostic tests that might be needed.**

### HOW ARE HEMORRHAGIC STROKES TREATED?

Because hemorrhages may be life-threatening, hospital care is required. Medication is used to control high blood pressure. Other medicine may be given to reduce the brain swelling that follows a stroke.

Surgery may be needed depending on the cause and type of the hemorrhage. Surgery is often recommended to either place a metal clip at the base of an aneurysm or to remove the abnormal vessels that make up an AVM. Some procedures are less invasive and use of a catheter that goes in through

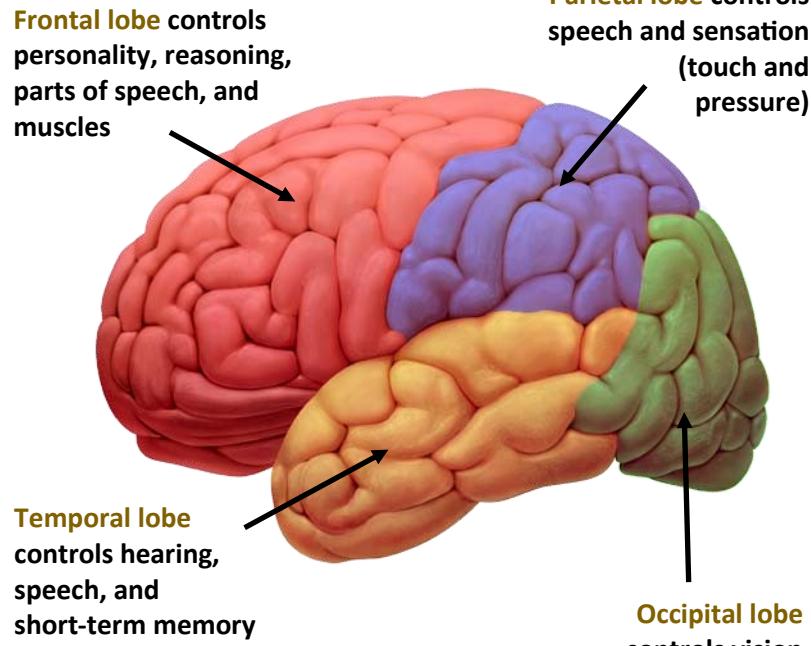
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# let's talk about **Changes Caused by Stroke**

Your brain controls how you move, feel, communicate, think and act. Brain injury from a stroke may affect any of these abilities. Some changes are common no matter which side of the brain the injury is on. Others are based on which side of the brain the stroke injures.



## WHAT ARE THE MOST COMMON GENERAL EFFECTS OF STROKE?

- Hemiparesis (weakness on one side of the body) or hemiplegia (paralysis on one side of the body)
- Dysarthria (difficulty speaking or slurred speech), or dysphagia (trouble swallowing)
- Fatigue
- Loss of emotional control and changes in mood
- Cognitive changes (problems with memory, judgment, problem-solving or a combination of these)
- Behavior changes (personality changes, improper language or actions)
- Decreased field of vision (inability to see peripheral vision) and trouble with visual perception

## WHAT ARE COMMON CHANGES WITH A LEFT-BRAIN INJURY?

- Paralysis or weakness on the right side of the body.
- Aphasia (difficulty getting your words out or

understanding what is being said).

- Behavior that may be more reserved and cautious than before.

## WHAT ARE COMMON CHANGES WITH A RIGHT-BRAIN INJURY?

- Paralysis or weakness on the left side of the body.
- One-sided neglect, which is a lack of awareness of the left side of the body. It may also be a lack of awareness of what is going on to the survivor's left. For example, they may only eat from the right side of their plate, ignoring the left side of the plate.
- Behavior may be more impulsive and less cautious than before.
- It may be harder for the survivor to understand facial expressions and tone of voice. They also may have less expression in their own face and tone of voice when communicating.

(continued)



## WHAT ARE COMMON EMOTIONAL EFFECTS OF STROKE?

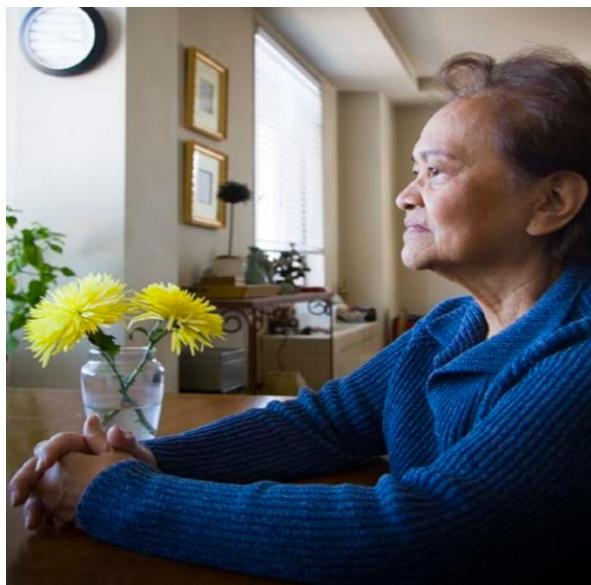
- Depression
- Apathy and lack of motivation
- Frustration, anger and sadness
- Pseudobulbar affect, also called reflex crying or emotional lability (emotions may change rapidly and sometimes not match the mood)
- Denial of the changes caused by the brain injury

## WILL I GET BETTER?

In most cases people do get better over time. The effects of a stroke are greatest right after the stroke. From then on, you may start to get better. How fast and how much you improve depends on the extent of the brain injury and your rehabilitation.

- Some improvement occurs spontaneously and relates to how the brain works again after it's been injured.
- Stroke rehabilitation (rehab) programs help you improve your abilities and learn new skills and coping techniques.

- Rehab begins after the stroke is over and you're medically stable.
- Depression after stroke can interfere with rehab. It's important to treat depression.
- Improvement often occurs most quickly in the first months after a stroke. Then it continues over years, perhaps at a slower pace, with your continued efforts.



Emotional changes such as depression are common effects of stroke, but most people do get better over time.

## 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:

- **Can other areas of the brain help the damaged part of the brain?**
- **How has my stroke affected me?**

## HOW CAN I LEARN MORE?

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Updated 12/1/2020



## let's talk about **High Blood Pressure and Stroke**



**WHAT IS HIGH BLOOD PRESSURE (HBP)?** High blood pressure means that the force of the blood pushing against the sides of your arteries is consistently in the high range. This can lead to stroke, heart attack, heart failure or kidney failure.

Two numbers represent blood pressure. The higher (systolic) number shows the pressure while the heart is beating. The lower (diastolic) number shows the pressure when the heart is resting between beats. The systolic number is always listed first. Blood pressure is measured in millimeters of mercury (mm Hg).

Normal blood pressure is below 120/80 mm Hg. If you're an adult and your systolic pressure is 120 to 129, and your diastolic pressure is less than 80, you have elevated blood pressure. High blood pressure is a pressure of 130 systolic or higher, or 80 diastolic or higher, that stays high over time.

**HOW DOES HIGH BLOOD PRESSURE INCREASE STROKE RISK?** High blood pressure is the single most important risk factor for stroke because it's the leading cause of stroke.

HBP adds to your heart's workload and damag-

es your arteries and organs over time. Compared to people whose blood pressure is normal, people with HBP are more likely to have a stroke.

About 87 percent of strokes are caused by narrowed or clogged blood vessels in the brain that cut off the blood flow to brain cells. This is an **ischemic stroke**. High blood pressure causes damage to the inner lining of the blood vessels. This adds to any blockage that is already within the artery wall.

About 13 percent of strokes occur when a blood vessel ruptures in or near the brain. This is a **hemorrhagic stroke**. Chronic HBP or aging blood vessels are the main causes of this type of stroke. HBP puts more pressure on the blood vessels until they can no longer maintain the pressure and the blood vessel ruptures over time.

**AM I AT HIGHER RISK FOR HBP?** There are risk factors that increase your chances of developing HBP. Some you can control, and some you can't.

*(continued)*



Those that can be controlled are:

- Smoking and exposure to secondhand smoke
- Diabetes
- Being obese or overweight
- High cholesterol
- Unhealthy diet (high in sodium, low in potassium, and drinking too much alcohol)
- Physical inactivity

Factors that cannot be modified or are difficult to control are:

- Family history of high blood pressure
- Race/ethnicity
- Increasing age
- Gender (males)
- Chronic kidney disease
- Obstructive sleep apnea

Socioeconomic status and psychosocial stress are also risk factors for HBP. These can affect access to basic living necessities, medication, healthcare providers, and the ability to adopt lifestyle changes.

### HOW CAN I CONTROL HIGH BLOOD PRESSURE?



The only way to know if your blood pressure is high is to check it regularly. Know what your blood pressure should be and try to keep it at that level.

- Don't smoke and avoid secondhand smoke
- Lose weight if you're overweight
- Eat a healthy diet that's low in sodium (salt), saturated fat, and trans fat
- Eat fruits and vegetables, whole grains and low-fat dairy products. Include foods rich in potassium.
- Enjoy regular physical activity
- Limit alcohol to no more than two drinks a day if you're a man and one drink a day if you're a woman
- Take all medicines as prescribed to control your blood pressure

### 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:

- **What should my blood pressure be?**
- **How often should my blood pressure be checked?**

### HOW CAN I LEARN MORE?

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## let's talk about **What is Diabetes and How Can I Manage It?**

*Your digestive track breaks down the carbohydrates that you eat into glucose — a type of sugar — which gets absorbed into the blood. Insulin is a hormone that helps your body's cells absorb the glucose from the blood and use it or store it for energy.*

*When you have diabetes, your body either doesn't make enough insulin or can't use its own insulin as well as it should, or both. This causes sugars to build up too high in your blood.*



Between doctor visits, you can monitor your blood sugar with a home glucose monitor. They are available at many large retailers and pharmacies.

**WHAT TYPES OF DIABETES ARE THERE?** There are two main forms of diabetes: **type 1 diabetes** and **type 2 diabetes**.

**Type 2** is the most common. About 90 percent to 95 percent of American adults diagnosed with diabetes have type 2 diabetes. It most often develops in middle-aged and older adults. It's often linked with being overweight, obese and physically inactive.

Insulin resistance is a condition where the body produces insulin but does not use it efficiently and blood glucose goes up. If uncontrolled, insulin resistance can lead to prediabetes or type 2 diabetes.

**Type 1** diabetes usually starts early in life, but it can also develop in adults. It results from the body's failure to produce insulin. People with it must take insulin each day to control their levels of blood glucose.

**AM I AT RISK?** The number of people with diabetes is increasing. More people are overweight or obese, don't get enough physical activity and don't eat a healthy diet. These factors can increase risk of type 2 diabetes.

tes. While type 2 diabetes has historically been more common in adults, many younger people are developing diabetes at an alarming rate.

People in several ethnic groups seem to be more likely to develop type 2 diabetes. These groups include:

- Hispanics/Latinos
- African Americans
- Native Americans
- Asians (especially South Asians)

**HOW CAN I CONTROL MY RISK FOR HEART DISEASE AND STROKE?** Diabetes is a major risk factor for stroke and heart disease. Other major risk factors are smoking, high cholesterol, high blood pressure, physical inactivity or obesity.

If you have diabetes, it's very important to have regular check-ups. Work closely with your healthcare provider to manage your diabetes and reduce any other risk factors:

- Manage your weight, blood pressure and cholesterol with a heart-healthy eating plan

*(continued)*



that is low in saturated fat, trans fat, salt (sodium) and added sugars.

- Be physically active. Aim for at least 150 minutes of moderate-intensity physical activity, such as brisk walking, or 75 minutes of vigorous-intensity aerobic activity each week.
- If you drink alcohol, don't have more than one drink per day for women or two per day for men.
- Lower your blood pressure, if it's too high. Aim for a normal blood pressure which is less than 120 mm Hg for the systolic (upper) number and less than 80 mm Hg for the diastolic (lower) number.
- Don't smoke, and avoid second-hand smoke.
- If you take medications, take them exactly as directed.
- If you have questions about the dosage or side effects, ask your healthcare provider or pharmacist.



Following a heart-healthy eating plan is a great way to manage your diabetes and reduce other risk factors.

## 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:

- **Can diabetes be cured?**
- **What type of diet would be most helpful?**

## HOW CAN I LEARN MORE?

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Updated 12/1/2020

answers by  
**heart**



Lifestyle + Risk Reduction  
Smoking

American Heart Association | American Stroke Association  
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## let's talk about **How Can I Quit Smoking?**

*Smoking harms almost every tissue and organ in the body, including your heart and blood vessels. Smoking also harms nonsmokers who are exposed to second-hand smoke.*

*If you smoke, you have good reason to worry about its effect on your health, your loved ones and others. Deciding to quit is a big step, and following through is just as important. Quitting smoking isn't easy, but others have done it, and you can too.*



**IS IT TOO LATE TO QUIT?** No matter how much or how long you've smoked, when you quit smoking, your risk of heart disease and stroke starts to drop. In the year after you quit smoking, your excess risk of coronary heart disease drops by 50 percent. After 15 years, your risk is as low as someone who has never smoked. While you may crave a cigarette after quitting, most people feel that quitting is the most positive thing they've ever done for themselves.

**HOW DO I QUIT?** It's never too late to quit. You are more likely to quit smoking for good if you prepare for two things: your last cigarette, and the cravings, urges and feelings that come with quitting. Think about quitting in five steps:

- 1. Set a Quit Date.** Choose a date within the next seven days when you will quit smoking. Tell your family members and friends who are most likely to support your efforts.
- 2. Choose a method for quitting.** There are several ways to quit smoking. Some include:
  - Stop smoking all at once on your Quit Day.
  - Reduce the number of cigarettes per day

until you stop smoking completely.

- Smoke only part of your cigarette. If you use this method, you need to count how many puffs you take from each cigarette and reduce the number every two to three days.

**3. Decide if you need medicines or other help to quit.** Talk to your healthcare provider to discuss which medicine is best for you, and to get instructions about how to use it. These may include nicotine replacements (gum, spray, patch or inhaler) or prescription medicines such as bupropion hydrochloride or varenicline. You may also ask about referral to a smoking cessation program.

**4. Plan for your Quit Day.** Get rid of all cigarettes, matches, lighters, ashtrays from your house. Find healthy substitutes for smoking. Go for walks. Carry sugarless gum or mints. Munch carrots or celery sticks.

**5. Stop smoking on your Quit Day.**

*(continued)*

answers by  
**heart**



Lifestyle + Risk Reduction  
Smoking

## How Can I Quit Smoking?

**WHAT IF I SMOKE AFTER QUITTING?** It's hard to stay a nonsmoker once you've had a cigarette, so do everything you can to avoid that "one." The urge to smoke will pass. The first two to five minutes will be the toughest. If you do smoke after quitting:

- This doesn't mean you're a smoker again — do something now to get back on track.
- Don't punish or blame yourself — tell yourself you're still a nonsmoker.
- Think about why you smoked and decide what to do differently the next time.
- Sign a contract to stay a nonsmoker.

### WHAT HAPPENS AFTER I QUIT?

- Your senses of smell and taste come back.
- Your smoker's cough will go away.
- You'll breathe much easier.
- You'll be free from the mess, smell and burns in clothing.
- You'll increase your chances of living longer and reduce your risk of heart disease and stroke.



### 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:

- When will the urges stop?
- How can I keep from gaining weight?

### HOW CAN I LEARN MORE?

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## let's talk about **Lifestyle Changes To Prevent Stroke**

*You can do plenty to make your heart and blood vessels healthy, even if you've had a stroke. A healthy lifestyle plays a big part in decreasing your risk for disability and death from stroke and heart attack.*



### **HOW CAN I MAKE MY LIFESTYLE HEALTHIER?**

Here are steps to take to be healthier and reduce your risk of stroke:

- Don't smoke and avoid second-hand smoke.
- Improve your eating habits. Eat foods low in saturated fat, trans fat, sodium and added sugars.
- Be physically active.
- Take your medicine as directed.
- Get your blood pressure checked regularly and work with your healthcare provider to manage it if it's high.
- Reach and maintain a healthy weight.
- Decrease your stress level.
- Seek emotional support when it's needed.
- Have regular medical checkups.

### **HOW DO I STOP SMOKING?**

- The first and more important step is making a decision to quit — and commit to stick to it.
- Ask your healthcare provider for information, programs and medications that may help.

- Fight the urge to smoke by going to smoke-free facilities. Avoid staying around people who smoke.
- Keep busy doing things that make it hard to smoke, like working in the yard.
- Remind yourself that smoking causes many diseases, can harm others and is deadly.
- Ask your family and friends to support you.

### **HOW DO I CHANGE MY EATING HABITS?**

- Ask your doctor, nurse or a licensed nutritionist or registered dietician for help.
- Be aware of your special needs, especially if you have high blood pressure, high cholesterol or diabetes.
- Avoid foods like fatty meats, butter and cream, which are high in saturated fat.
- Eat moderate amounts of food and cut down on saturated fat, trans fat, sugar and salt.
- Bake, broil, roast and boil foods instead of frying.

*(continued)*

## let's talk about **stroke**



## PREVENTION

- Read nutrition labels on packaged meals. Many are very high in sodium.
- Limit alcohol to one drink a day for women; two drinks per day for men.
- Eat more fruit, vegetables, whole-grains, dried peas and beans, pasta, fish, poultry and lean meats.

### WHAT ABOUT PHYSICAL ACTIVITY?

- If you have a chronic medical condition, check with your doctor before you start.
- Start slowly and build up to at least 150 minutes of moderate physical activity (such as brisk walking) a week. Or, you can do 75 minutes of vigorous- intensity physical activity, or a combination of the two, to improve overall cardiovascular health.
- Look for even small chances to be more active. Take the stairs instead of an elevator and park farther from your destination.



### 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:

- **What is the most important change I can make?**
- **What kind of physical activity can I do safely?**

### HOW CAN I LEARN MORE?

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Updated 12/1/2020

## Lifestyle Changes to Prevent Stroke

## let's talk about **The Stroke Family Caregiver**

*People who provide help for stroke survivors are often called caregivers. Everyone involved in helping a stroke survivor is a caregiver. It can be the spouse, family members or friends. Often one person, spouse, adult child or parent, will provide most of the care.*

*It's important that caregivers and stroke survivors strive to be "care partners" in their efforts. It's often a challenge for both to adjust to their changed roles. The adjustment may be easier if the caregiver and stroke survivor share in decision-making as much as possible and try to share their feelings honestly.*



**WHAT SHOULD A CAREGIVER DO?** There is no one "job description" that explains what all caregivers do. Each caregiver's responsibilities vary according to the unique needs of the stroke survivor. Role changes and new skills may need to be learned. Common responsibilities of caregiving include:

- Providing physical help with personal care and transportation.
- Managing financial, legal and business affairs.
- Monitoring behavior to ensure safety.
- Managing housework and making meals.
- Coordinating health care and monitoring or giving medications.
- Helping the survivor maintain learned rehab skills and work to improve them.
- Providing emotional support for the stroke survivor and family members.
- Encouraging the stroke survivor to continue

working toward recovery and to be as independent as possible.

### **IS THERE ASSISTANCE FOR CAREGIVERS?**

Many people find caring for another person very rewarding. But there may be times when a stroke survivor's needs are too much for any one person. Sometimes a caregiver just needs a break. These breaks are important to not only the caregiver but also to the stroke survivor. These community resources may be helpful:

- **Adult day care** — professional supervision of adults in a social setting during the day.
- **Adult foster homes** — supervised care in approved (licensed) private homes.
- **Meal programs (Meals on Wheels)** — a federally sponsored nutrition program.

*(continued)*



- **Home health aide service** — in-home personal care assistance.
- **Homemaker assistance** — supervised, trained personnel who help with household duties.
- **Respite care** — people come into the home for a limited time to give caregivers a break. Some nursing homes also provide short-term respite care.

#### Is training available for family caregivers?

Finding caregiver training locally can be hit or miss. A good place to start is with your local Area Agency on Aging. Visit [eldercare.gov](http://eldercare.gov) to find an office near you.



Hiring a home health aide is a great way to give yourself a break from the rigors of being the primary caregiver.

#### 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:

- Is there a stroke support group or caregiver support group in my area?
- Do you know of any other national organizations that support caregivers?

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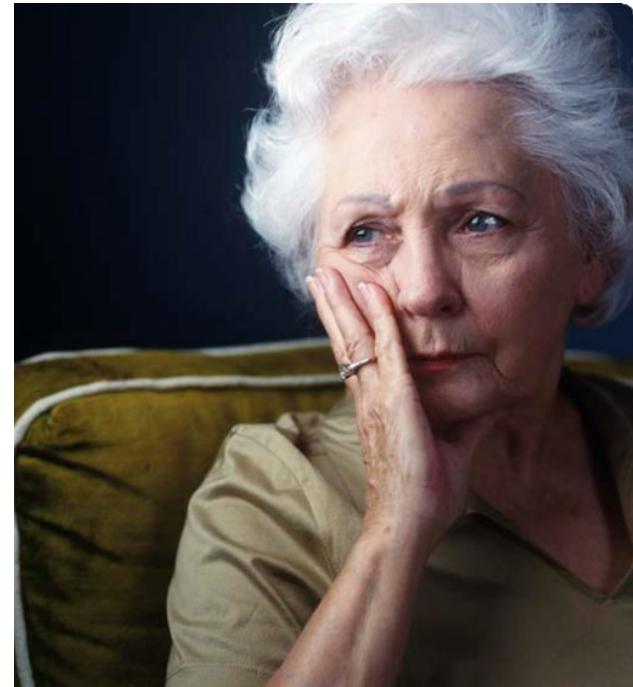
Updated 12/1/2020



## let's talk about **Emotional Changes After Stroke**

*Right after a stroke, a survivor may respond one way, yet weeks later respond differently. Some survivors may react with sadness; others may be cheerful. These emotional reactions may occur because of biological or psychological causes due to stroke.*

*These changes may vary with time and can interfere with rehabilitation.*



**HOW DOES STROKE CAUSE EMOTIONAL CHANGES?** Emotions may be hard to control, especially right after a stroke. Some changes are a result of the actual injury and chemical changes to the brain caused by the stroke.

Others are a normal reaction to the challenges, fears and frustrations that one may feel trying to deal with the effects of the stroke. Often, talking about the effects of the stroke and acknowledging these feelings helps stroke survivors deal with these emotions.

**WHAT ARE SOME COMMON EMOTIONAL CHANGES AFTER STROKE?** Pseudobulbar Affect, also called “emotional lability,” “reflex crying” or “labile mood,” can cause:

- Rapid mood changes — a person may “spill over into tears” for no obvious reason and then quickly stop crying or start laughing.
- Crying or laughing that doesn’t match a person’s mood.
- Crying or laughing at unusual times or that lasts longer than seems appropriate.

Post-stroke depression is characterized by:

- Feelings of sadness
- Hopelessness or helplessness
- Irritability
- Changes in eating, sleeping and thinking

Treatment for post-stroke depression may be needed. If not treated, depression can be an obstacle to a survivor’s recovery. Don’t hesitate to take antidepressant medications prescribed by your doctor.

Other common emotional reactions include:

- Frustration
- Anxiety
- Anger
- Apathy or not caring what happens
- Lack of motivation
- Depression or sadness

*(Continued)*



### How can I cope with my changing emotions?

- Tell yourself that your feelings aren't "good" or "bad." Let yourself cope without feeling guilty about your emotions.
- Find people who understand what you're feeling.
- Ask about a support group.
- Get enough exercise and do enjoyable activities.
- Give yourself credit for the progress you've made. Celebrate the large and small gains.
- Learn to "talk" to yourself in a positive way. Allow yourself to make mistakes.
- Ask your doctor for help. Ask for a referral to a mental health specialist for psychological counseling and/or medication if needed.
- Stroke may cause you to tire more easily. Rest when you feel fatigued. Make sure you get enough sleep. Sometimes lack of sleep can cause emotional changes and cause you not to cope as well.



Connecting with friends or joining a stroke support group may help you cope with your changing emotions.

### 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:

- Is there a stroke support group or caregiver support group in my area?
- Do you know of any other national organizations that support caregivers?

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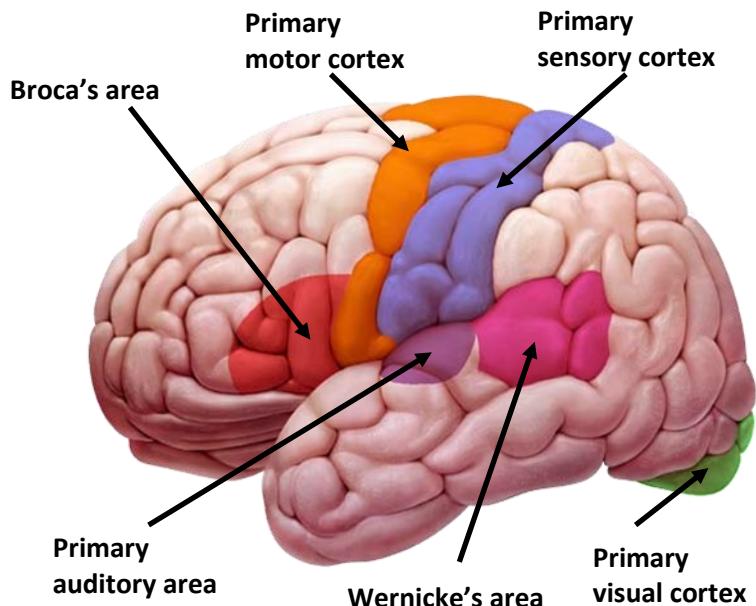
Updated 12/1/2020



## let's talk about **Stroke and Aphasia**

*Aphasia is a language disorder that affects the ability to communicate. It's most often caused by strokes that occur in areas of the brain that control speech.*

*Certain areas of the brain (usually in the left side of the brain) influence one's ability to communicate and understand language. When a stroke occurs in one of these areas, it may result in aphasia.*



**WHAT ARE THE EFFECTS OF APHASIA?** Aphasia does not affect intelligence. Stroke survivors remain mentally alert, even though their speech may be jumbled, fragmented or impossible to understand. Some survivors continue to have:

- Trouble speaking, like "getting the words out"
- Trouble finding words
- Problems understanding what others say
- Problems with reading, writing or math
- Inability to process long words and infrequently used words

**HOW DOES IT FEEL TO HAVE APHASIA?** People with aphasia are often frustrated and confused because they can't speak as well or understand things the way they did before their stroke. They may act differently because of changes in their brain. Imagine looking at the headlines of the morning newspaper and not being able to recognize the words. Or think about trying to say "put the car in the garage" and it comes out "put the train in the house" or "widdle tee car ung sender plissen." Thousands of alert, intelligent men and women are suddenly

plunged into a world of jumbled communication because of aphasia.

### **ARE THERE DIFFERENT TYPES OF APHASIA?**

Yes, there are several forms of aphasia. They include:

- **Global aphasia** — People with this aphasia may be completely unable to speak, name objects, repeat phrases or follow commands.
- **Broca's aphasia** — The person knows what they want to say, but can't find the right words (can't get the words out).
- **Wernicke's aphasia** — A person with this aphasia can seldom understand what's being said or control what they're saying.

**HOW CAN FAMILY AND FRIENDS HELP?** The stroke survivor and their family members will need the help and support of a doctor, counselor and speech pathologist. It's a good idea for family and friends to:

- Be open about the problem so people can understand.

*(continued)*



- Always assume that the stroke survivor can hear. Check understanding with yes/no questions.
- Set up a daily routine for the person with aphasia that includes rest and time to practice skills.
- Use sentences that are short and to the point.
- Keep the noise level down and stand where the survivor can see you.
- **Remember to treat the stroke survivor as an adult** and let him or her share in decision-making.
- No one likes to be ignored. Include the survivor in your conversation.
- Help the stroke survivor cope with feelings of frustration and depression.
- Be patient with the person with aphasia. Give them the time they need to try to speak and get their point across to you. This not only respects their dignity, but makes it less stressful for them when communicating.



## 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:

- **How long will I need therapy?**
- **Will my aphasia go away?**
- **How can I find a stroke or aphasia support group?**

## HOW CAN I LEARN MORE?

1. Call 1-888-4-STROKE (1-888-478-7653) to learn more about stroke or to find local support groups, or visit [StrokeAssociation.org](http://StrokeAssociation.org)
2. Sign up to get *Stroke Connection* magazine, a free magazine for stroke survivors and caregivers at [strokeconnection.org](http://strokeconnection.org)
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Updated 12/1/2020

## let's talk about

# Feeling Tired After Stroke

*After a stroke, almost all stroke survivors feel tired or some type of fatigue at some point. Stroke survivors often must work harder to make up for the loss of normal functions (such as being unable to use an arm or hand). But you'll probably start feeling less tired after a few months. For some people, tiredness may continue for years after a stroke, but they usually find ways to make the most of the energy they have.*



**WHY AM I SO TIRED?** It's important to pinpoint what's causing you to be tired. Then you can take action to manage it. Consult with your healthcare provider to rule out any medical conditions that might cause tiredness or make it worse. You may feel tired after a stroke for four major reasons:

- You may have less energy than before because of sleeping poorly, not getting enough exercise, poor nutrition or the side effects of some of the medicine.
- You have as much energy as before, but you're using it differently. Because of the effects of your stroke, things, like dressing, talking or walking, take a lot more effort. Changes in thinking and memory take more concentration. You have to stay "on alert" all the time — and this takes energy.
- You also may feel tired due to emotional changes. Coping with frustration, anxiety, anger and sadness can be draining. Depressed feelings are common after a stroke. Often, loss of energy, interest or enthusiasm occurs along with a depressed mood.
- You may feel tired because of depression. Depression is very common after a stroke. Clinical depression is a treatable illness that happens to many stroke survivors. Symptoms include significant lack of energy, lack of motivation, and problems concentrating or finding enjoyment in anything. Talk to your doctor about an evaluation for clinical depression if tiredness continues. There is nothing to be ashamed of if you are feeling depressed. It is very common, and the good news is that it is treatable!

**HOW CAN I INCREASE MY ENERGY?** Tell your doctor how you are feeling and make sure you have had an up-to-date physical. Your doctor can evaluate any medical reasons for your tiredness. He or she can also check to see if your fatigue could be a side effect of your medication.

- Celebrate your successes. Give yourself credit when you accomplish something. Look at your progress, not at what's left to be done.

(continued)



- Try naps, or schedule rest periods throughout the day. Rest as long as you need to feel refreshed.
- Learn to relax. Sometimes the harder you try to do something, the harder it is to do. You become tense, anxious and frustrated. All this takes more energy. Being relaxed lets you use your energy more efficiently.
- Do something you enjoy every day. A positive attitude or experience helps a lot to boost energy levels.
- Be social. It is very important that you get back into the “swing of things” and stay involved with friends and family. Go out into the community and interact with friends, family and other people.
- Physical activity is important. With permission from your doctor, consider joining a health and wellness program.



Being with family and friends may provide that energy boost you need.

## 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:

- **What can I do to decrease my tiredness?**
- **Could clinical depression be causing my tiredness?**
- **Are the medicines I take causing my fatigue?**

## HOW CAN I LEARN MORE?

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Updated 12/1/2020



## let's talk about **Living at Home After Stroke**

*Most stroke survivors are able to return home and resume many of the activities they did before the stroke. Leaving the hospital may seem scary at first because so many things may have changed. The hospital staff can help prepare you to go home or to another setting that can better meet your needs.*



**For your safety, you may need to have handrails installed in your bathroom.**

**HOW DO I KNOW IF GOING HOME IS THE RIGHT CHOICE?** Going home poses few problems for people who have had a minor stroke and have few lingering effects. For those whose strokes were more severe, going home depends on these four factors:

- **Ability to care for yourself.** Rehabilitation should be focused on being able to perform daily activities such as eating, dressing and bathing.
- **Ability to follow medical advice.** This is a critical step in recovery and preventing another stroke or other complications after stroke. It's important to take medication as prescribed and follow medical advice.
- **A caregiver.** Someone should be available who is willing and able to help when needed.
- **Ability to move around and communicate.** If stroke survivors aren't independent in these areas, they may be at risk in an emergency or feel isolated.

**WHAT CHANGES DO I NEED TO MAKE AT HOME?** Living at home successfully also depends on how well your home can be adapted to meet your needs.

- **Safety.** Take a look around your home and remove anything that might be dangerous. This might be as simple as taking up throw rugs, testing the temperature of bath water or wearing rubber-soled shoes. Or it may be more involved, like installing handrails in your bathroom or other areas.
- **Accessibility.** You need to be able to move freely within the house. Changes can be as simple as moving the furniture or as involved as building a ramp.
- **Independence.** Your home should be modified so you can be as independent as possible. Often this means adding special equipment like grab bars or transfer benches.

*(continued)*



**WHAT IF I CAN'T GO HOME?** Your doctor may advise a move from the hospital to another type of facility that can meet your needs for a short time or permanently. It's important that the living place you choose is safe and supports your continued recovery. Your social worker and case manager at the hospital can give you information about facilities that might work for you. Possibilities include:

- **Nursing facility.** This can be a good option for someone who has ongoing medical problems. This type of facility provides round-the-clock care.
- **Skilled nursing facility.** This is for people who need more than usual medical attention, continued therapy and more care than a caregiver can provide at home. This type of facility also provides round-the-clock care.
- **Intermediate care facility.** This is for people who don't have serious medical problems and can manage some level of self-care.

- **Assisted living.** This is for people who can live somewhat independently but need some assistance with things like meals, medication and housekeeping.



Many stroke survivors who are unable to immediately return home find the support they need at assisted living or nursing facilities.

## 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:

- **What living arrangement would you recommend for me?**
- **Is there a caregiver or stroke support group available in my community?**

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Updated 12/1/2020

## HOW CAN I LEARN MORE?

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## let's talk about **Driving After Stroke**

*Driving is often a major concern after a stroke. It's not unusual for stroke survivors to want to drive. Getting around after a stroke is important—but safety is even more important.*



**CAN I DRIVE AFTER A STROKE?** Injury to the brain may change how you do things. Many people who have had a stroke develop some type of cognitive changes. This may include problems with memory, judgment, problem-solving or a combination of these. So before you drive again, think carefully about how these changes may affect safety for you, your family and others.

**WHAT ARE SOME WARNING SIGNS OF UNSAFE DRIVING?** Often survivors are unaware of the difficulties in driving that they might have. Some may not realize all of the effects of their stroke. They may feel that they're able to drive even when it's a bad idea. Driving against your doctor's advice can be dangerous and may be illegal. In some cases, your doctor may have to notify your state that you've been advised not to drive.

If you or someone you know has experienced some of these warning signs of unsafe driving, please consider taking a driving test:

- Drives too fast or too slow for road conditions or posted speeds
- Needs help or instructions from passengers

- Doesn't observe signs or signals
- Makes slow or poor distance decisions
- Gets easily frustrated or confused
- Often gets lost, even in familiar areas
- Has accidents or close calls
- Drifts across lane markings into other lanes

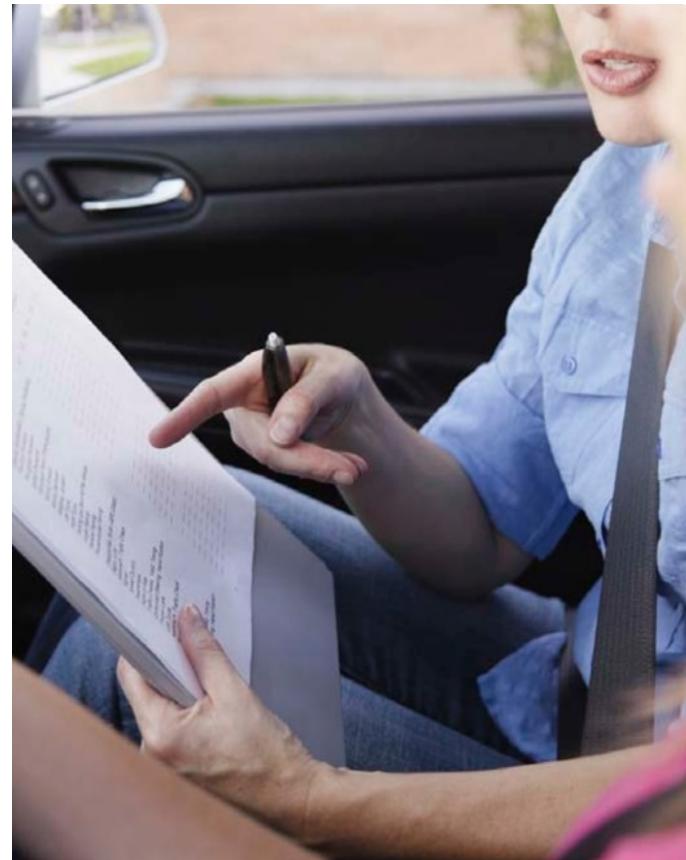
**HOW CAN I TELL IF I CAN DRIVE?** Talk to your doctor or occupational therapist. They will offer a professional opinion about how your stroke might change your ability to drive. Contact your State Department of Motor Vehicles. Ask for the Office of Driver Safety. Ask what applies to people who've had a stroke.

- Have your driving tested. Professionals such as driver rehabilitation specialists can evaluate your driving ability. You'll get a behind-the-wheel evaluation and be tested for vision perception, functional ability, reaction time, judgment and cognitive abilities (thinking and problem solving). Call community rehabilitation centers or your local Department of Motor Vehicles.

*(continued)*



- Enroll in a driver's training program. For a fee, you may receive a driving assessment, classroom instruction and suggestions for modifying your vehicle (if necessary). These programs are often available through rehab centers.
- Ask your family if they have seen changes in your communication, thinking, judgment or behavior that should be evaluated before you drive again. Family often have more opportunities to observe changes than others do.



## 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:

- When should I test my driving ability?
- Is my driving restriction permanent?
- If not, when might I be able to drive again?

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let's talk about

## How Can I Manage Stress?

*It is important to learn how to recognize how stress affects you, learn how to deal with it, and develop healthy habits to ease your stress. What is stressful to one person may not be to another. Stress can come from happy events (a new marriage, job promotion, new home) as well as unhappy events (illness, overwork, family problems).*



**WHAT IS STRESS?** Stress is your body's response to change. Your body reacts to it by releasing adrenaline (a hormone) that can cause your breathing and heart rate to speed up, and your blood pressure to rise. These reactions help you deal with the situation.

The link between stress and heart disease is not clear. But, over time, unhealthy responses to stress may lead to health problems. For instance, people under stress may overeat, drink too much alcohol or smoke. These unhealthy behaviors can increase your risk of heart disease.

Not all stress is bad. Speaking to a group or watching a close football game can be stressful, but they can be fun, too. The key is to manage your stress properly.

**HOW DOES STRESS MAKE YOU FEEL?** Stress affects each of us in different ways. You may have physical signs, emotional signs or both.

- You may feel angry, afraid, excited or helpless.
- It may be hard to sleep.
- You may have aches and pains in your

head, neck, jaw and back.

- It can lead to habits like smoking, drinking, overeating or drug abuse.
- You may not even feel it at all, even though your body suffers from it.

**HOW CAN I COPE WITH IT?** Taking steps to manage stress will help you feel more in control of your life. Here are some good ways to cope.

- Try positive self-talk — turning negative thoughts into positive ones. For example, rather than thinking "I can't do this," say "I'll do the best I can."
- Take 15 to 20 minutes a day to sit quietly, relax, breathe deeply and think of something peaceful.
- Engage in physical activity regularly. Do what you enjoy — walk, swim, ride a bike or do yoga. Letting go of the tension in your body will help you feel a lot better.
- Try to do at least one thing every day that you enjoy, even if you only do it for 15 minutes

(continued)



**HOW CAN I LIVE A MORE RELAXED LIFE?** Here are some positive healthy habits you may want to develop to manage stress and live a more relaxed life.

- Think ahead about what may upset you. Have a plan ready to deal with situations. Some things you can avoid. For example, spend less time with people who bother you. Avoid driving in rush-hour traffic.
- Learn to say “no.” Don’t promise too much.
- Give up your bad habits. Too much alcohol, cigarettes or caffeine can increase stress. If you smoke, make the decision to quit now.
- Slow down. Try to “pace” not “race.” Plan ahead and allow enough time to get the most important things done.
- Get enough sleep. Try to get 6 to 8 hours of sleep each night.
- Get organized. Use “To Do” lists if it helps you focus on your most important tasks. Approach big tasks one step at a time.



## 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:

- **How can family and friends help?**

## HOW CAN I LEARN MORE?

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Updated 12/1/2020



## let's talk about **Stroke and Rehabilitation**

*When the immediate crisis of a stroke has passed and you've been stabilized medically, it's time to consider rehabilitation (rehab) therapy,*



**WHAT IS STROKE REHABILITATION?** After a stroke, you may have to change or relearn how you live day to day. Rehab may reverse some of the effects of stroke.

The goals of rehab are to increase independence, improve physical functioning, and help you gain a satisfying quality of life after stroke. Another goal is to help you make lifestyle changes to prevent another stroke.

**WHO WILL BE A PART OF MY REHABILITATION PROGRAM?** Your rehab team may include:

- **Physiatrist** — A medical doctor who specializes in rehab.
- **Physical therapist** — A healthcare provider who specializes in maximizing a stroke survivor's mobility and independence to improve major motor and sensory impairments, such as walking, balance and coordination.
- **Occupational therapist** — A therapist who focuses on helping stroke survivors rebuild

skills in daily living activities such as bathing, toileting and dressing.

- **Rehabilitation nurse** — A nurse who coordinates the medical support needs of stroke survivors throughout rehab.
- **Speech therapist** — A specialist who helps to restore speech and language skills and also treats swallowing disorders.
- **Recreational therapist** — A therapist who helps to modify activities that the survivor enjoyed before the stroke or introduces new ones.
- **Psychiatrist or psychologist** — Specialists who help stroke survivors adjust to the emotional challenges and new circumstances of their lives.
- **Vocational rehabilitation counselor** — A specialist who evaluates work-related abilities of people with disabilities. They can help stroke survivors make the most of their skills to return to work.

*(continued)*



### WHAT WILL I DO IN REHABILITATION?

- Rehab programs often focus on:
- Activities of daily living such as eating, bathing and dressing.
- Mobility skills such as transferring from bed to chair, walking or self-propelling a wheelchair.
- Communication skills in speech and language.
- Cognitive skills such as memory or problem solving.
- Social skills in interacting with other people.
- Psychological functioning to improve coping skills and treatment to overcome depression, if needed.



Learning how to use a wheelchair is among the many post-stroke skills taught by rehab therapists.

### 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:

- **Can you refer me to a psychiatrist?**
- **How can I continue to improve my skills after formal rehab ends?**

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## Join Us

### STROKE SUPPORT GROUP

**Where:** Zoom—online meeting platform

[https://ehihalawai.zoom.us/j/91814580807?  
pwd=SzRIZVJZTHFzVzFzSINwQnIzUHg2QT09](https://ehihalawai.zoom.us/j/91814580807?pwd=SzRIZVJZTHFzVzFzSINwQnIzUHg2QT09)

Meeting ID: 918 1458 0807 | Password: 088712

**When:** 4 pm every second Tuesday of the month.

**Why:** To gather and support stroke survivors, family, friends and caregivers.

For more information, contact: Speech Language Pathologist, Amy Shipley [ashipley@hhsc.org](mailto:ashipley@hhsc.org) at (808) 932-3049.



Hilo Medical Center | 1190 Waianuenue Avenue | 808.932.3000 | [HiloMedicalCenter.org](http://HiloMedicalCenter.org)  
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# **KNOW THE WARNING SIGNS OF A STROKE**

**A Stroke is a Medical Emergency. Do not ignore the warning signs, even if they go away.**

**Act F.A.S.T.  
**CALL 9-1-1.**  
TIME IS BRAIN.  
EVERY SECOND COUNTS.**

Hilo Medical Center  
1190 Waianuenue Avenue  
Hilo, Hawai'i 96720  
(808) 932-3000