

let's talk about

# ***STROKE***

## ***PATIENT EDUCATION GUIDE***

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



### **BALANCE**

Is the person losing his/her coordination or balance? Is he/she having trouble walking?



### **EYES**

Is the person having trouble seeing out of one or both eyes?



### **FACE**

Ask the person to smile. Does one side of the face droop?



### **ARMS**

Ask the person to raise both arms. Does one arm drift down?



### **SPEECH**

Ask the person to repeat a sentence. Are the words slurred? Is he/she having trouble getting words out?



### **TIME**

If the person shows any of these symptoms, time is important. Call 911 and get to the hospital fast. Brain cells are dying.

DON'T HESITATE TO ASK QUESTIONS!

*Caitee McAllister*

RN, BSN

Stroke/STEMI Coordinator



**Hilo Medical Center**

1190 Waiuanuenue Avenue  
Hilo, HI 96720



(808) 932-6381



(808) 932-3236

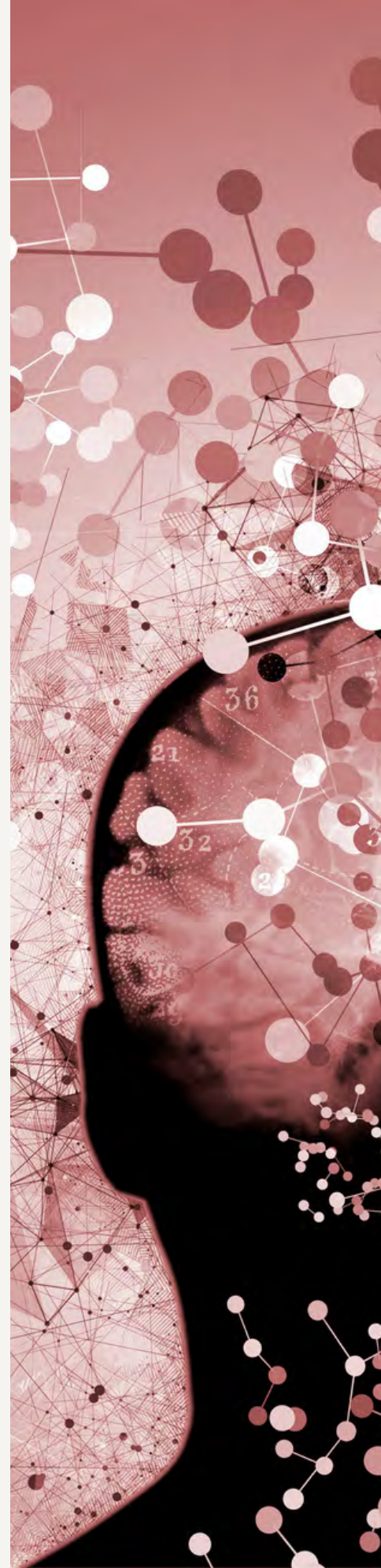


cmcallister@hhsc.org



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Please join us for  
***Stroke Support  
Group***

A place to share experiences, celebrate  
victories, gain education, connect to  
resources, & navigate life after stroke


**Second  
Tuesday  
of every  
Month  
4-5pm**

***Ground Conference  
Room D***

1190 Waiānūenue Avenue  
Hilo, HI 96720  
Enter through the Cafeteria

**For more information, please contact:**

Caitee McAllister, RN, BSN

 808-932-3236

Stroke & STEMI Coordinator

 [cmcallister@hhsc.org](mailto:cmcallister@hhsc.org)





# Secondary Stroke Prevention Checklist

## Taking Steps to *Prevent Another Stroke*

QUESTIONS	YES	RISK / RECOMMENDATION
1. Has the patient had a <b>stroke</b> or <b>TIA</b> ?	<input type="checkbox"/>	Approximately 23% of strokes each year are recurrent. Risk of recurrent stroke or TIA is high (5% at 1 year) but can be mitigated with appropriate prevention strategies.
2. Does the patient need to undergo <b>diagnostic evaluation</b> to determine the etiology of the stroke?	<input type="checkbox"/>	Given the relatively high risk of recurrent stroke, a diagnostic evaluation is recommended for gaining insights into the etiology and planning optimal prevention strategies, with testing completed or underway within 48 hours of stroke symptom onset.
3. Does the patient have <b>blood pressure</b> greater than 130/80 mm Hg?	<input type="checkbox"/>	Treatment of hypertension is possibly the most important intervention for secondary prevention of ischemic stroke. An office blood pressure goal of <130/80 mm Hg is recommended for most patients. Antihypertensive medication is useful.
4. Has the patient been screened for <b>diabetes mellitus</b> (DM)?	<input type="checkbox"/>	DM is an independent risk factor for stroke recurrence. After a TIA or ischemic stroke, all patients should be screened for DM. New cases of Type 2 DM have been detected in about 11.5% of patients presenting with acute ischemic stroke and prediabetes in 36.2%. For most patients, achieving a goal of hemoglobin A1c ≤7% is recommended.
5. Does the patient's <b>cholesterol level</b> need to be lowered?	<input type="checkbox"/>	Patients with ischemic stroke and no known coronary heart disease, no major cardiac sources of embolism, and LDL-C >100 mg/dL, should be treated with atorvastatin 80 mg daily to reduce risk of stroke recurrence. Patients with ischemic stroke or TIA and atherosclerotic disease should be treated with a statin and also ezetimibe, if needed, to a goal LDL-C of <70 mg/dL.
6. Is the patient <b>physically inactive</b> ?	<input type="checkbox"/>	Regular physical activity reduces stroke risk, positively impacts stroke risk factors and aids in recovery. Patients who are able should engage in at least moderate-intensity aerobic activity for a minimum of 10 minutes 4 times a week or vigorous-intensity aerobic activity for a minimum of 20 minutes twice a week. For patients with deficits that impair their ability to exercise, a supervised exercise program can be beneficial.
7. Does the patient <b>smoke</b> ?	<input type="checkbox"/>	Smoking approximately doubles the risk of stroke. Counseling with or without drug therapy should be recommended to help patients quit smoking.
8. Does the patient need to make <b>dietary changes</b> ?	<input type="checkbox"/>	It is reasonable to recommend that patients follow a diet emphasizing vegetables, fruits, whole grains, low-fat dairy products, fish, legumes and nuts, and limits sodium, sweets and red meats.
9. Does the patient drink large amounts of <b>alcohol</b> ?	<input type="checkbox"/>	Patients who are heavy drinkers should be counseled to eliminate or reduce their consumption of alcohol. Light to moderate amounts of alcohol consumption (up to 2 drinks per day for men and up to 1 drink per day for nonpregnant women) may be reasonable.
10. Has the patient been screened for or diagnosed with <b>atrial fibrillation</b> (AF)?	<input type="checkbox"/>	AF is a powerful risk factor for ischemic stroke, increasing the risk 4- to 5-fold. In patients with non-valvular AF or atrial flutter and stroke or TIA, oral anticoagulation is recommended.
11. Is this an <b>ischemic stroke</b> or <b>TIA</b> patient who should be on aspirin or other antiplatelet therapy?	<input type="checkbox"/>	In patients with noncardioembolic ischemic stroke or TIA, antiplatelet therapy is indicated in preference to oral anticoagulation. More specifically, Guidelines recommend aspirin 50-325mg daily, or clopidogrel 75mg, or the combination of aspirin 25mg and extended release dipyridamole 200mg twice daily. Dual antiplatelet therapy is only recommended short-term and in very specific patients.
12. Does the patient have <b>sleep apnea</b> ?	<input type="checkbox"/>	Sleep apnea affects about 38%-40% of patients with stroke. Treatment with positive airway pressure can be beneficial.





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**Prevention**

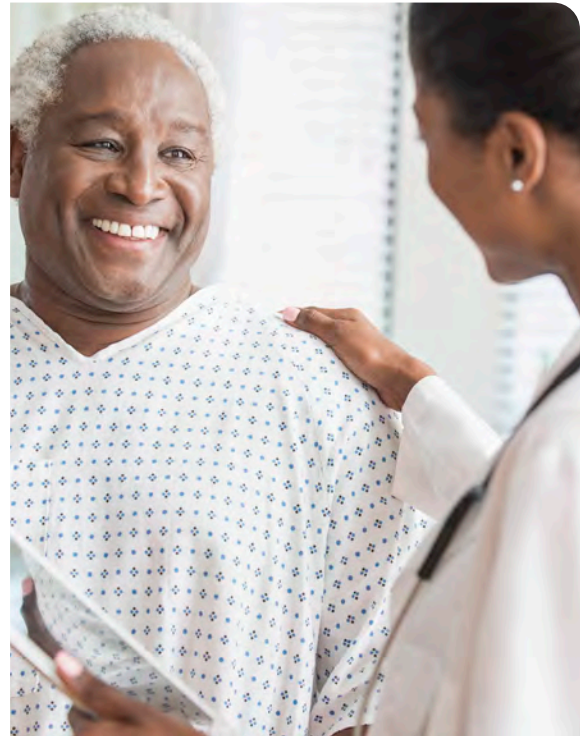
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## **Risk Factors for Stroke**

Risk factors are traits and lifestyle habits that increase your chance of disease. Being aware of these risk factors and knowing your personal risk is the first step in preventing a stroke.

There are two types of risk factors: the kind not within your control (uncontrollable) and the kind you can control, treat and improve (controllable). By having regular medical checkups you can know your risk factors, and create a plan to lower your risk of stroke.

Work with your health care team to identify your personal risk factors and make a plan to treat, change or control them.



### **What risk factors can I control, change or treat?**

- **High blood pressure.** A leading risk factor for stroke and a leading cause of stroke. Know your blood pressure and have it regularly checked every year. Normal blood pressure is below 120/80.
- **Smoking and vaping.** These can lead to damages within the blood vessels, causing a stroke. Quit smoking and vaping, don't start and avoid secondhand smoke.
- **Diabetes.** By impacting your body's ability to make or use insulin correctly, diabetes can cause glucose (sugar) to build up in your blood. High glucose levels can damage the body's blood vessels, increasing the chance of stroke.
- **High cholesterol.** High cholesterol increases the risk of blocked arteries. If an artery leading to the brain becomes blocked, it can result in a stroke.
- **Physical inactivity and obesity.** Being inactive, obese or both can increase risk for heart disease and stroke. Aim to reach and maintain a healthy weight.
- **Carotid or other artery disease.** A stroke can occur when a carotid artery, which leads to the brain, becomes damaged or blocked by a fatty build up of plaque inside the artery wall limiting or stopping blood flow.
- **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 rather than beat 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.
- **Illegal drug use.** Drugs including cocaine, ecstasy, amphetamines, and heroin are associated with an increased risk of stroke.

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## Risk Factors for 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. Pregnancy, certain forms of birth control, history of preeclampsia/eclampsia or gestational diabetes, and certain types of hormone therapy pose special stroke risks for women.
- **Heredity and race.** People whose close blood relatives have had a stroke have a higher risk of stroke. Black and Hispanic people are at a higher risk of death and disability because they often have high blood pressure, a leading risk factor for stroke.
- **Prior stroke.** Someone who has had a stroke is at higher risk of having another one.



## HOW CAN I LEARN MORE?

- 1 Call 1-888-4-STROKE (1-888-478-7653) or visit [stroke.org](https://stroke.org) to learn more about stroke or find local support groups.
- 2 Sign up for our monthly *Stroke Connection* e-news for stroke survivors and caregivers at [StrokeConnection.org](https://StrokeConnection.org).
- 3 Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/SupportNetwork](https://stroke.org/SupportNetwork).

### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**What are my risk factors for stroke I can control or manage?**

**What are my risk factors for stroke I can't control?**

**What are the warning signs of TIA and stroke?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](https://stroke.org/LetsTalkAboutStroke) to learn more.

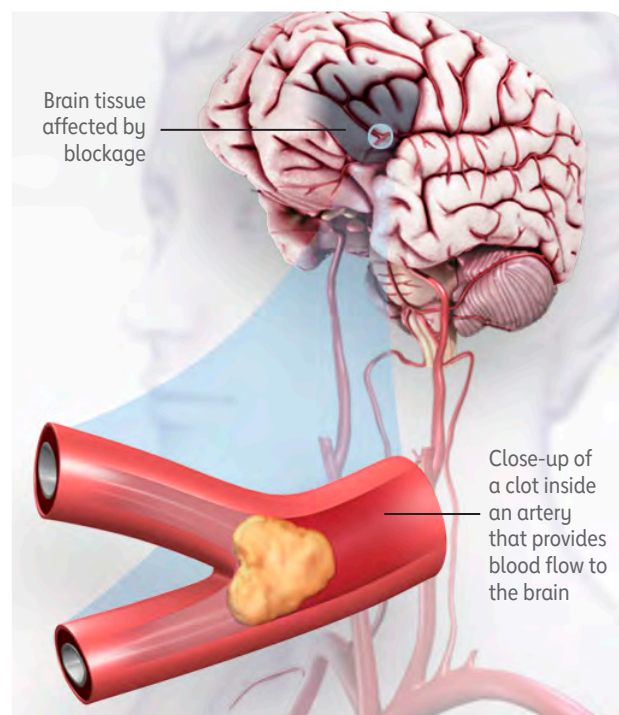
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## Stroke, TIA and Warning Signs

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 to 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 die, 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.



Your brain cells need a constant supply of blood, oxygen and nutrients to work. When blood flow is blocked, you can have a stroke or TIA.

### What is a TIA?

TIA, or transient ischemic attack, is a "warning" 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 12% of all strokes are preceded by TIAs, so don't ignore a TIA. **Call 911 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 reduce 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-busting drug called alteplase (IV r-tPA) used to treat ischemic stroke. It can reduce disability from stroke by breaking up a blood clot that might be stopping the blood flow to the brain. To be eligible to receive alteplase, a doctor must diagnose your stroke as an ischemic stroke and treat you within **3 to 4.5 hours** of onset of stroke symptoms. The sooner it is given, the greater the possibility of a better outcome.

Another treatment option is called a **mechanical thrombectomy**. In eligible patients with large clots in an artery, the procedure should be done as soon as possible within up to 24 hours of stroke symptom. Patients eligible for alteplase should receive it prior to undergoing 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.

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## Let's Talk About Stroke, TIA and Warning Signs

### What are 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 911 or the emergency response number in your area immediately. 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.



# F.A.S.T.

Face  
Drooping

Arm  
Weakness

Speech  
Difficulty

Time to  
Call 911

### HOW CAN I LEARN MORE?

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- 3** Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/supportnetwork](https://stroke.org/supportnetwork).

#### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care 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?**

#### MY QUESTIONS:

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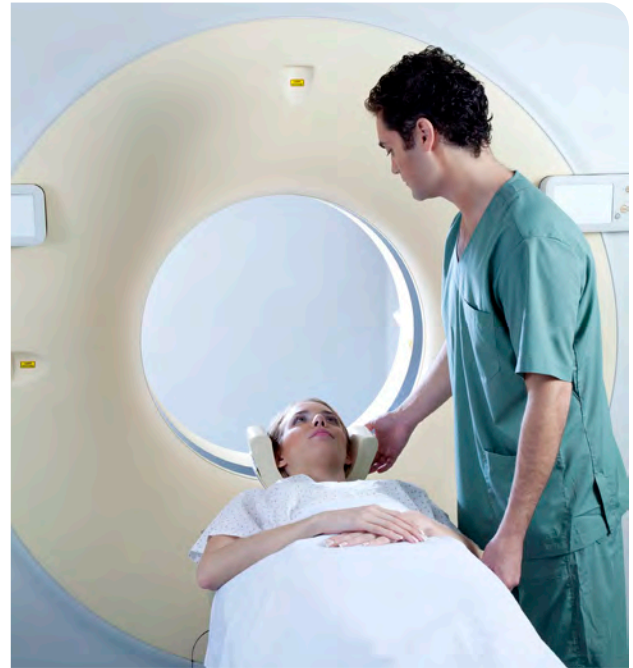
Treatment

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# 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.



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

## How is a stroke diagnosed?

The type of stroke must be determined for proper treatment. 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.

In the emergency room, your stroke emergency team may:

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

## 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 information about the cause of stroke and the location and extent of brain injury.
- **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 more detailed than a CT scan, so it's often used to diagnose small, deep injuries to the brain.
- **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.

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## Let's Talk About a Stroke Diagnosis

- **MRA (magnetic resonance angiography).** In this test, the blood vessels are imaged through a magnetic resonance scanner to locate a blocked artery or to identify if a cerebral aneurysm is present.

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 seen. This test helps in diagnosing aneurysms and malformed blood vessels.

### How will I be treated?

The treatment you will receive will depend on the type of stroke you have been diagnosed with.



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### Do you have questions for your doctor or nurse?

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

For example:

**Do these tests cause any complications?**

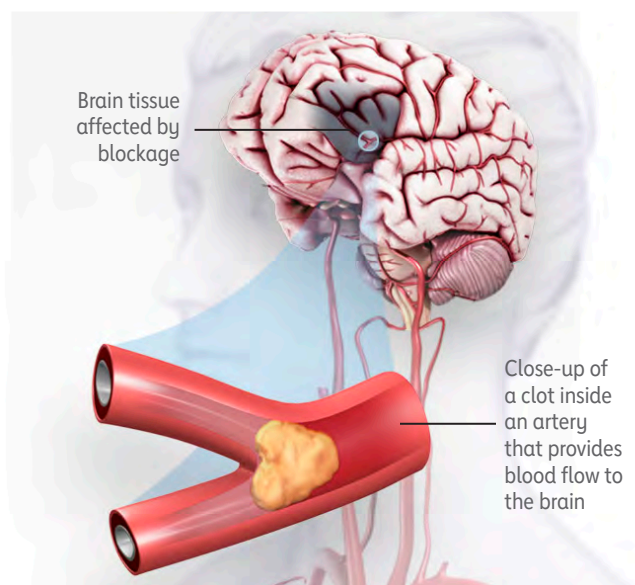
### MY QUESTIONS:

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# Ischemic Stroke

The majority of strokes (87%) 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.



An ischemic stroke occurs when a clot or a mass blocks a blood vessel, cutting off blood flow to a part of the brain.

## Are all ischemic strokes the same?

There are two main types of ischemic stroke.

- **Cerebral thrombosis** is 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.
- **Cerebral embolism** is 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. A main cause of embolism is an irregular heartbeat called atrial fibrillation.

## 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. They will review the events that have occurred and will:

- Ask when the symptoms of stroke started.
- 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 health care 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-busting drug called alteplase (IV r-tPA) used to treat ischemic stroke. It can reduce disability from stroke by breaking up a blood clot that is stopping the blood flow to the brain. To be eligible to receive alteplase, a doctor must diagnose your stroke as an ischemic stroke and treat you within **3 to 4.5 hours** of onset of stroke symptoms. Medication may also be used to treat brain swelling that sometimes occurs after a stroke.

For people with larger blood clots, alteplase may not dissolve them completely. In this case, a procedure, called **mechanical thrombectomy**, may be considered. In eligible patients with large clots in an artery, the procedure should be done as soon as possible within up to 24 hours of stroke symptom onset. Patients eligible for alteplase should receive it prior to undergoing mechanical thrombectomy.

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.

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## Let's Talk About Ischemic Stroke

### What other treatments may I receive?

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:

- **Medications** such as aspirin and clopidogrel (antiplatelets) 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 **angioplasty** and **stents** to treat and reduce fatty buildup clogging a blood vessel. The fatty plaques may make it easier for clots to form.

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 health care team will prescribe appropriate treatment.



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

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#### Do you have questions for your doctor or nurse?

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

For example:

**What can I do to help prevent another stroke?**

**What medications may I be given?**

#### MY QUESTIONS:

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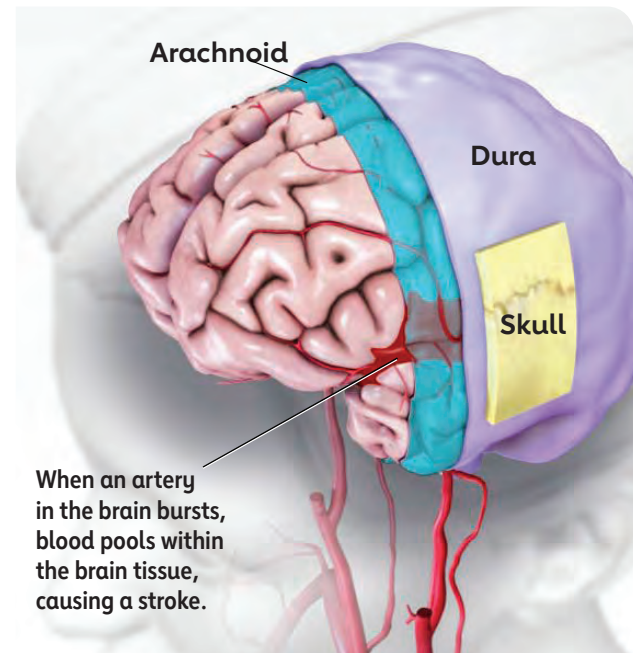
**Prevention**

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# Hemorrhagic Stroke

About 13 percent of strokes happen when a blood vessel ruptures in or near the brain. This is called a 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.

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

- Cigarette smoking
- Excessive alcohol intake
- Use of illegal drugs

## 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. They will review the events that have occurred and will:

- Get a medical history.
- Do a physical 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.

*(continued)*



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

- Imaging tests give a picture of the brain similar to X-rays.
- Blood flow tests show any problem that may cause changes in blood flow to the brain.

### How are hemorrhagic strokes treated?

Because hemorrhages may be life-threatening, hospital care is required. Medication is used to control high blood pressure. Other medications 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 a catheter that goes in through a major artery in the leg or arm. The catheter is guided to the aneurysm or AVM, where it places a device, such as a coil, to prevent rupture.

Caregivers play a vital role in stroke survivor's recovery. Emotional and practical support and training for the caregiver can be helpful to improve the patients' balance and activity level.

Rehabilitation and recovery are important determinants of post-stroke outcomes and quality of life.

# F.A.S.T.

Face  
Drooping

Arm  
Weakness

Speech  
Difficulty

Time to  
Call 911

Dizziness, loss of balance, a sudden, severe headache or difficulty swallowing are some other common warning signs of a stroke.

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### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**What can I do to help prevent another stroke?**

**How can I control high blood pressure?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](https://stroke.org/LetsTalkAboutStroke) to learn more.



let's talk about

## Changes Caused by Stroke

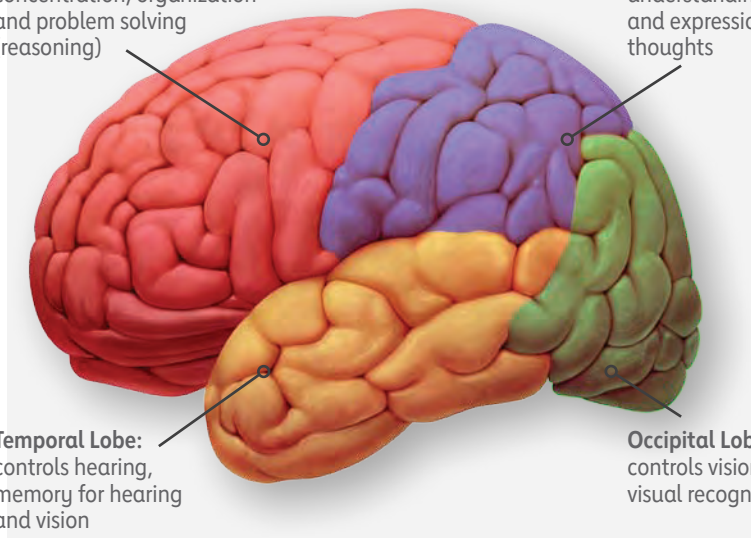
Your brain controls how you move, feel, communicate, think and act. Brain injury from a stroke may affect any of these abilities. Some changes are common, no matter where the injury occurs in the brain. Others are based on which side of the brain the stroke injures.

**Frontal Lobe:**  
motor control of voluntary muscles, personality, concentration, organization and problem solving (reasoning)

**Parietal Lobe:**  
controls touch, pressure and temperature, understanding speech and expression of thoughts

**Temporal Lobe:**  
controls hearing, memory for hearing and vision

**Occipital Lobe:**  
controls vision and visual recognition



### 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, 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's 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's 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.)
- More impulsive behavior and less cautious than before
- Difficulty understanding facial expressions and tone of voice and possibly having less expression and tone of voice when communicating

(continued)



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## Changes Caused by Stroke

### What are common emotional effects of stroke?

- Depression
- Apathy and lack of motivation
- Frustration, anger and sadness
- Pseudobulbar affect, or PBA, 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?

Every person and every stroke is unique. In most cases, people get better over time. The effects of a stroke are greatest right after the stroke. From then on, how fast and how much you improve depend 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 programs help you improve your abilities and learn new skills and coping techniques.



- Rehabilitation begins often within a day or two after the stroke once you're medically stable.
- Depression after stroke can interfere with rehabilitation. So it's important to treat it.
- 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.

## HOW CAN I LEARN MORE?

- 1 Call 1-888-4-STROKE (1-888-478-7653) or visit [stroke.org](https://stroke.org) to learn more about stroke or find local support groups.
- 2 Sign up for our monthly *Stroke Connection e-news* for stroke survivors and caregivers at [StrokeConnection.org](https://StrokeConnection.org).
- 3 Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/SupportNetwork](https://stroke.org/SupportNetwork).

### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**Can other areas of the brain help the damaged part of the brain?**

**How has my stroke affected me?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](https://stroke.org/LetsTalkAboutStroke) to learn more.

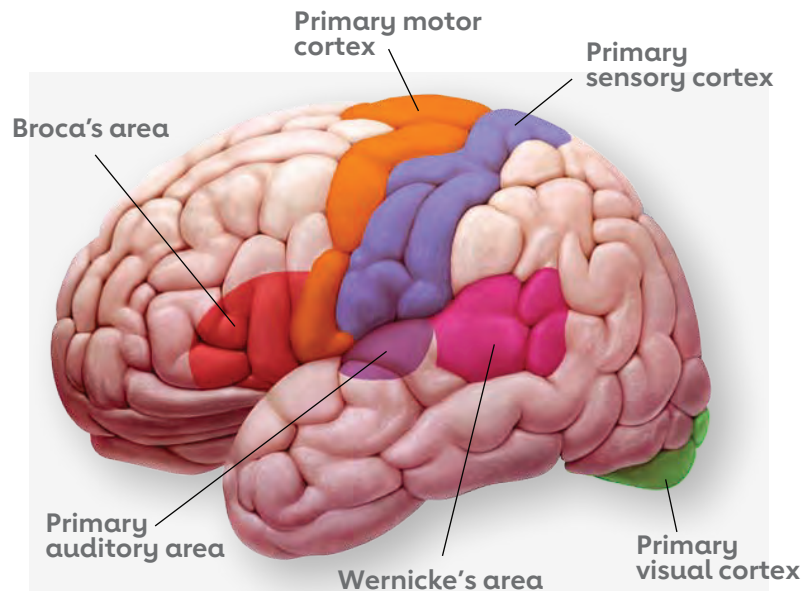




let's talk about

# Stroke and Aphasia

Aphasia is a language disorder that impairs the ability to communicate. It's most often caused by stroke-related injuries to areas of the brain that control speech and language.



Certain areas of the brain (usually on the left side) influence the ability to use 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. People with aphasia usually remain mentally alert even though their speech may be jumbled, fragmented or impossible to understand. They may have:

- Difficulty getting the words out
- Trouble finding words
- Difficulty understanding what others are saying
- Problems with reading, writing or math
- Trouble with long and/or uncommon words

## How does it feel to have aphasia?

Imagine not being able to recognize the words in the headline of a story. What would it be like to try and say "put the car in the garage" and have it come out "put the train in the house" or "widdle tee car ung sender plissen." Aphasia often plunges alert, intelligent people into a world of jumbled communication.

People with aphasia are often frustrated and confused because they can't speak as well as they could before their stroke, they can't understand others the way they once could or both. They may act differently because of changes in their brain.

## Are there different types of aphasia?

Yes, there are several. They include:

- **Global aphasia:** People with this aphasia have a severe impairment in both forming and understanding words and sentences.
- **Broca's aphasia:** With this condition, speech is halting and difficult, marked by problems with grammar such as dropped words and sometimes impaired comprehension.
- **Wernicke's aphasia:** People with this aphasia often string together meaningless words that only sound like a sentence, and have difficulty understanding others' speech.

## What is the difference between aphasia and apraxia?

Aphasia, apraxia of speech and oral apraxia are all communication disorders that can result from a stroke. It can be hard to distinguish among them, especially since all three may be present at the same time. Here's a breakdown of what the terms mean:

- **Aphasia** is an impairment in the ability to use and/or comprehend words.

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- **Apraxia of speech**, or *verbal apraxia*, involves difficulty moving muscles needed to speak, even though there is no paralysis or weakness of those muscles.
- **Oral apraxia**, or *nonverbal oral apraxia*, involves difficulty moving the muscles of the lips, throat, soft palate and tongue for purposes other than speech, such as smiling or whistling.

### How can family and friends help?

Stroke survivors and their loved ones will need the help and support of a doctor, counselor and speech pathologist. It's a good idea for loved ones to:

- Be open about the problem so others understand the situation.
  - Always assume that the person with aphasia can hear. Confirm his or her 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 person with aphasia can see you.
- Treat the person with aphasia as an adult and include him or her in conversations and decision-making. No one likes to be ignored.
  - Help the person with aphasia cope with frustration and depression.
  - Be patient. Give people with aphasia the time they need to communicate with you. You'll respect their dignity and help reduce their stress.



### HOW CAN I LEARN MORE?

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- 3 Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/SupportNetwork](https://stroke.org/SupportNetwork).

#### Do you have questions for your or your loved one's health care provider?

Take a few minutes to jot down your questions for the next time you see your or your loved one's health care provider.

For example:

**How long will I need therapy?**

**Will my mother's aphasia improve?**

**How can I find a stroke or aphasia support group?**

#### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices to reduce your risk, manage disease or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](https://stroke.org/LetsTalkAboutStroke) to learn more.

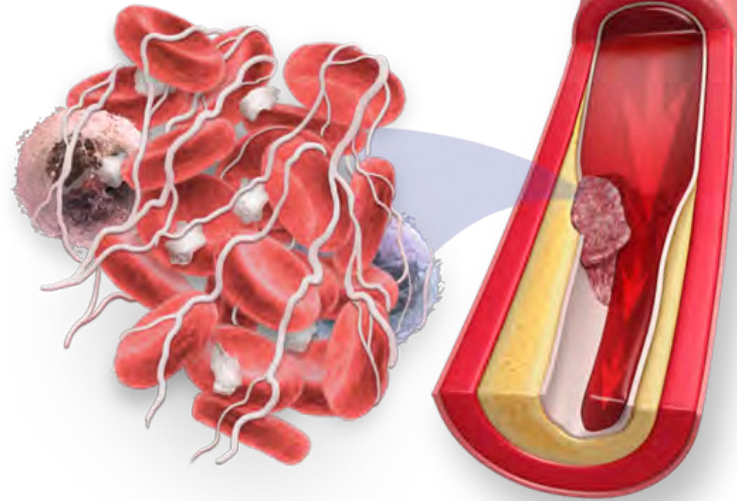


let's talk about

## Anticoagulants and Antiplatelet Agents

Anticoagulants and antiplatelets are medicines that reduce blood clotting in an artery, vein or the heart. Doctors prescribe these to help prevent heart attacks and strokes caused by blood clots. Blood clots can block blood flow to your heart or your brain causing a heart attack or stroke.

Blood clots are made up of red blood cells, platelets, fibrin, and white blood cells (shown below). Anticoagulants and antiplatelets keep these parts 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, rivoraxaban and edoxaban.

Anticoagulants make it harder for blood clots to form in your heart, veins and arteries. They also can keep existing clots from growing larger. It's important to follow these tips while on anticoagulants:

- Take your medications exactly as prescribed.
- If you take warfarin, have regular blood tests so your health care provider 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.
- Never take aspirin with anticoagulants unless your doctor tells you to.
- Make sure all your health care providers know that you're taking anticoagulants.
- Always talk to your health care provider before taking any new medicines or supplements. This includes aspirin, vitamins, cold medicine, pain medicine, sleeping pills or antibiotics. These can affect the way anticoagulants work by strengthening or weakening them.

- Discuss your diet with your health care providers. Foods rich in Vitamin K can reduce the effectiveness of warfarin. Vitamin K is in leafy, green vegetables, fish, liver, lentils, soybeans and some vegetable oils.
- Tell your family that you take anticoagulant medicine.
- Always carry your emergency medical ID card.

### Could anticoagulants cause problems?

If you do as your doctor tells you, there probably won't be problems. But you must tell them right away if:

- You think you're pregnant or you're planning to get pregnant.
- Your urine turns pink, red or brown. This could be a sign of urinary tract bleeding.
- 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.

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## Anticoagulants and Antiplatelet Agents

- You get sick or feel weak, faint or dizzy.
- You often find bruises or blood blisters.
- You have an accident, such as a bump on the head, a cut that won't stop bleeding or a fall of any kind.

### What should I know about antiplatelet agents?

Antiplatelets keep blood clots from forming by keeping blood platelets from sticking together.

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

Many heart attack and stroke patients – and people seeking to avoid these events may get dual antiplatelet therapy (DAPT). With DAPT, two types of antiplatelets— aspirin and a P2Y<sub>12</sub> inhibitor—are used to prevent blood clots.

P2Y<sub>12</sub> inhibitors are usually prescribed for months or years along with 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). Your doctor will prescribe the best one for you based on your risk of blood clots and bleeding.

### Do I need an emergency medical ID?

Yes, always keep it with you. It needs to include:

- The name of the drugs you're taking.
- Your name, phone number and address.
- The name, address and phone number of your doctor.

## HOW CAN I LEARN MORE?

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- 3 Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/SupportNetwork](https://stroke.org/SupportNetwork).

### Do you have questions for your doctor or nurse?

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

For example:

**What kind of aspirin or other antiplatelet agent should I take?**

**What is the right dose for me?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](https://stroke.org/LetsTalkAboutStroke) to learn more.



let's talk about

## High Blood Pressure and Stroke

High blood pressure means that the force of the blood pushing against the blood vessel walls is consistently in the high range. Uncontrolled HBP can lead to stroke, heart attack, heart failure or kidney failure.

Two numbers represent blood pressure. The higher (systolic) number is the pressure in your arteries when your heart beats. The lower (diastolic) number is the pressure while your heart rests 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 systolic pressure of 130 or higher or a diastolic pressure of 80 or higher that stays high over time.

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120-129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130-139	or	80-89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

### How does high blood pressure increase stroke risk?

High blood pressure is a major risk factor for stroke.

HBP adds to your heart's workload and damages 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% 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 will narrow an artery.

About 13% 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 strains blood vessels. Over time, they no longer hold up to the pressure and rupture.

### Am I at higher risk for HBP?

There are risk factors that increase your chances of developing HBP. Some you can improve or treat, and some you can't.

Those that can be improved or treated are:

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

Factors that can't be changed or are difficult to control are:

- Family history of high blood pressure
- Race/ethnicity

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## Let's Talk About High Blood Pressure and Stroke

- 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, health care providers, and the ability to make healthy lifestyle changes.

### How can I control high blood pressure?

Even if you have had a prior stroke or heart attack, controlling high blood pressure can help prevent another one. Take these steps:

- Don't smoke and avoid secondhand smoke.
- Reach and maintain a healthy weight.
- Eat a healthy diet low in sodium and saturated and trans fat. Limit sweets and red and processed meats.
- Eat fruits and vegetables, whole grains, low-fat dairy products, poultry, fish and nuts. Include foods rich in potassium.
- Be physically active. Aim for at least 150 minutes of moderate-intensity physical activity per week.



- 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.
- Know what your blood pressure should be and try to keep it at that level.

## HOW CAN I LEARN MORE?

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### Do you have questions for your doctor or nurse?

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

For example:

**What should my blood pressure be?**

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

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](https://stroke.org/LetsTalkAboutStroke) to learn more.

let's talk about

## The Connection Between Diabetes and Stroke

Diabetes, also called diabetes mellitus, is a condition that causes blood sugar to rise. A fasting blood glucose (sugar) level of 126 milligrams per deciliter (mg/dL) or higher is dangerous.

- More than 30 million Americans have diabetes.
- Diabetes is the 7th leading cause of death in the U.S.
- Occurrence of diabetes is higher among American Indians, Alaska Natives, non-Hispanic blacks, and Hispanics/Latinos.
- Adults who have diabetes are two times as likely to have a stroke compared to people who do not have diabetes.
- People with diabetes tend to develop heart disease or have a stroke at an earlier age than people without diabetes.
- People with prediabetes have an increased risk not only for developing Type 2 diabetes, but also for heart disease and stroke.
- Every two minutes an American adult with diabetes is hospitalized for stroke.

***Knowing this, it's important to understand the connection between diabetes and stroke, recognize the risk factors and take steps to stay healthy.***



### Why does diabetes often lead to stroke?

The connection between diabetes and stroke has to do with the way the body handles blood glucose to make energy. Most of the food we eat is broken down into glucose to give us energy. Glucose enters a person's bloodstream after food is digested and travels to cells throughout the body. For glucose to enter cells and provide energy, it needs a hormone called insulin. The pancreas is responsible for producing this insulin in the right amounts. In people who have Type 1 diabetes, the pancreas does not make insulin. In people who have Type 2 diabetes, the pancreas makes too little insulin, or muscles, the liver and fat do not use insulin in the right way.

As a result, people with untreated diabetes accumulate too much glucose in their blood, and their cells don't receive enough energy. Over time, excessive blood glucose can result in increased fatty deposits or clots in blood vessels. These

clots can narrow or block blood vessels in the brain or neck, cutting off the blood supply, stopping oxygen from getting to the brain and causing a stroke.

### Stroke risk factors

- Diabetes or prediabetes.
- Excessive belly fat:
  - Men: waist more than 40 inches.
  - Women: waist more than 35 inches.
- High blood pressure.
- High blood glucose levels.
- High cholesterol.
- Cigarette smoking.

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## The Connection Between Diabetes and Stroke

### What You Can Do

If you have diabetes, you can ward off the risk of stroke by taking steps to keep your heart and blood vessels healthy.

1. Maintain a heart-healthy diet.
2. Don't smoke.
3. Maintain a healthy weight.
4. Exercise every day.
5. Limit alcohol.
6. Learn to manage stress.
7. Talk to your health care provider.



### BE INFORMED, BE HEALTHY

People with diabetes can live long, healthy lives, free from heart disease, stroke and other health problems. Recognizing the connection between diabetes and stroke is the first step toward lowering stroke risk.

### HOW CAN I LEARN MORE?

- 1 Call 1-888-4-STROKE (1-888-478-7653) or visit [stroke.org](https://stroke.org) to learn more about stroke or find local support groups.
- 2 Subscribe to the **Stroke Connection**, a free digital magazine for stroke survivors and caregivers, at [strokeconnection.org](https://strokeconnection.org).
- 3 Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/supportnetwork](https://stroke.org/supportnetwork).

### Do you have questions for the doctor or nurse?

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

For example:

**How can I reduce my risk of stroke?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit [stroke.org/letstalkaboutstroke](https://stroke.org/letstalkaboutstroke) to learn more.

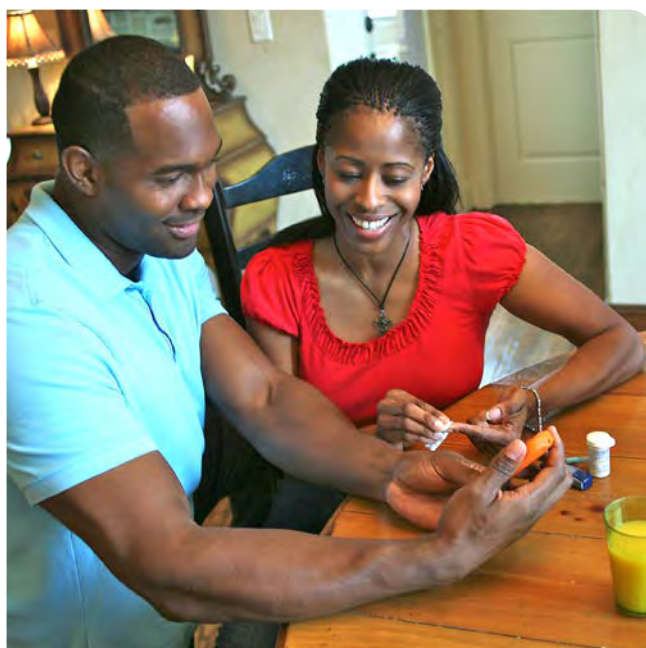




# What Is Diabetes and How Can I Manage It?

Diabetes is a condition that results in blood sugar rising to dangerous levels. Blood sugar, also called glucose, is controlled by insulin. Blood sugar is your main source of energy and comes mostly from the food you eat. Insulin is a hormone that helps your body's cells absorb the glucose from your 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 in your blood.



Between health care visits, you can monitor your blood sugar with a home glucose monitor.

## What types of diabetes are there?

There are two main types of diabetes: Type 1 and Type 2.

**Type 1 diabetes** usually occurs in children and young adults. It results from the body's failure to produce insulin. People with Type 1 diabetes must take insulin or other medications daily.

**Type 2 diabetes** is the most common form of diabetes. It most often appears in adults. It develops when the body doesn't use the insulin it makes efficiently. This is called **insulin resistance**. Also, the pancreas may not make enough insulin for the body's needs.

**Prediabetes** means that the body is having trouble getting your blood sugar numbers down to a healthy range, but it hasn't yet reached the level of Type 2 diabetes.

## Am I at risk for Type 2 diabetes?

You're more likely to develop Type 2 diabetes if you:

- Are age 45 or older.
- Have a family history of Type 2 diabetes.
- Have prediabetes.
- Had gestational diabetes or gave birth to a baby over nine pounds.

- Are overweight or obese.
- Don't get enough physical activity.
- Don't eat a healthy diet.

People in certain ethnic groups also seem to be more likely to develop Type 2 diabetes. These groups include African Americans, Hispanic/Latino Americans, American Indians, Alaska Natives and Asian Americans.

## How is it diagnosed?

Diabetes is diagnosed using one of three tests.

The most common test is the **HbA1C** (or A1C). It's used to diagnose and monitor diabetes. This test measures your average blood sugar level for the past two to three months. You may be diagnosed with diabetes if your A1C is 6.5% or above.

Another blood test is the **fasting plasma glucose test** (FPG). You can't eat or drink except for water for eight hours prior to the test. Normal glucose is less than 100 milligrams per deciliter (mg/dL). Diabetes is diagnosed at 126 mg/dL or higher on at least two occasions.

An **oral glucose tolerance test** (OGTT) measures how well your body handles a standard amount of glucose.

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## What Is Diabetes and How Can I Manage It?

### How can I manage diabetes and reduce my risk for heart disease and stroke?

Changing your habits is key in managing your diabetes and preventing heart disease and stroke. Medication may still be needed, but you can reduce your risk by taking these steps.

1. Control your diabetes.
2. Don't smoke and avoid second-hand smoke.
3. Control your blood pressure.
4. Improve your cholesterol.
5. Eat a heart-healthy diet.
6. Reach and maintain a healthy weight.
7. Be physically active.
8. Get adequate sleep.
9. Manage stress and well-being.
10. Have regular medical check-ups.

You may need to check your sugar level daily and monitor your carbohydrate intake. You also may need medicines to help control your blood sugar or insulin levels. People newly diagnosed with Type 2 diabetes may be prescribed **metformin** as the first-line of medication. It decreases the amount of glucose made in your liver.

If lifestyle changes and metformin aren't controlling your blood sugar well enough, additional medicines may be needed.



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

### HOW CAN I LEARN MORE?

- 1 Call **1-800-AHA-USA1** (1-800-242-8721), or visit [heart.org](http://heart.org) to learn more about heart disease and stroke.
- 2 Sign up for our monthly *Heart Insight* e-news for heart patients and their families, at [HeartInsight.org](http://HeartInsight.org).
- 3 Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at [heart.org/SupportNetwork](http://heart.org/SupportNetwork).

#### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**Can diabetes be cured?**

**What type of diet would be most helpful?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices to reduce your risk for heart disease, manage your condition or care for a loved one. Visit [heart.org/AnswersByHeart](http://heart.org/AnswersByHeart) to learn more.

## How Can I Quit Smoking?

Smoking harms almost every tissue and organ in the body, including your heart and blood vessels. Nicotine, one of the main chemicals in cigarettes, causes your heart to beat faster and your blood pressure to rise. Carbon monoxide from smoking also gets into the blood and robs your body of oxygen. Nonsmokers who are exposed to secondhand smoke are also harmed.

If you smoke or vape, you have good reason to worry about its effect on your health and the health of your loved ones and others.

Deciding to quit is a big step. Following through is just as important. Quitting tobacco and nicotine addiction isn't easy, but others have done it, and you can, too.



### Is it too late to quit smoking or vaping?

It's never too late to quit. Quitting smoking has both short-term and long-term benefits for lowering your cardiovascular risk. No matter how much or how long you've smoked when you quit, your risk of heart disease and stroke starts to drop. People who quit smoking generally live longer than people who continue to smoke.

While you may crave tobacco or nicotine after quitting, most people feel that becoming tobacco-free is the most positive thing they've ever done for themselves.

### How do I quit?

You are more likely to quit 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 Day.** Choose a date within the next seven days when you will quit smoking or vaping. 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. Some are:

- Stopping all at once on your Quit Day.
- Cutting down the number of cigarettes per day or how many times you vape until you stop completely.
- Smoking only part of each 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 whether you need medicines or other help to quit.** Talk with your health care professional to determine which medicine is best for you. Get instructions for using it. Therapies may include nicotine replacement (gum, lozenges, spray, patches or an inhaler) or prescription medicines, such as bupropion hydrochloride or varenicline. You could also ask about a referral for a smoking cessation program.
4. **Plan for your Quit Day.** Get rid of all the cigarettes, matches, lighters, ashtrays and smoking products in your home, office and car. Find healthy substitutes for smoking. Go for walks. Keep sugarless gum or mints with you. Munch carrots or celery sticks.
5. **Stop smoking on your Quit Day.**

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### What if I smoke or vape after quitting?

It's hard to stay off tobacco and nicotine once you've given in, so do everything you can to avoid that "one." The urge will pass. The first two to five minutes will be the toughest. If you do smoke or vape 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 what triggered the urge and decide what to do differently the next time.
- Sign a contract to stay tobacco-free.

### What happens after I quit?

- Your senses of smell and taste improve.
- Your smoker's cough will go away.
- You'll breathe more easily.
- You'll be free from the mess and smell and the burns on your clothing.
- You'll increase your chances of living longer and reduce your risk of heart disease and stroke.



## HOW CAN I LEARN MORE?

- 1 Call 1-800-AHA-USA1 (1-800-242-8721), or visit [heart.org](https://heart.org) to learn more about heart disease and stroke.
- 2 Sign up for our monthly *Heart Insight* e-news for heart patients and their families, at [HeartInsight.org](https://HeartInsight.org).
- 3 Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at [heart.org/SupportNetwork](https://heart.org/SupportNetwork).

### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**When will the urges stop?**

**How can I keep from gaining weight?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices to reduce your risk, manage your condition or care for a loved one. Visit [heart.org/AnswersByHeart](https://heart.org/AnswersByHeart) to learn more.



let's talk about

## Lifestyle Changes to Prevent Stroke

A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts (or ruptures). Stroke affects the arteries leading to and within the brain. The good news is that many strokes may be prevented through blood pressure control, a healthy diet, regular physical activity and smoking cessation. Each plays a big part in decreasing your risk for stroke, disability or even death.



### What steps can I take to be healthier and reduce my risk of stroke?

- Don't smoke or vape and avoid secondhand smoke.
- Eat healthy foods low in saturated fat, trans fat and sodium (salt). Reduce sugary drinks.
- Do regular physical activity.
- Keep a healthy weight.
- Limit alcohol to one drink a day for women; two drinks per day for men.
- Take your medications as directed.
- Know your blood pressure. Optimal blood pressure is less than 120/80 mm Hg. Get your blood pressure checked regularly and work with your health care professional to manage it if it's high. High blood pressure is a leading cause of stroke.
- Reduce stress, which may contribute to behaviors such as overeating, lack of physical activity, unhealthy diet and smoking.
- Have regular medical checkups, including assessment of your risk for stroke.
- Get adequate sleep, 7-9 hours of sleep per night for adults; more for children and kids.

### How do I stop smoking or vaping?

- Make a decision to quit — and stick to it.
- Ask a health care professional for information, programs and/or medications that may help you quit.
- Call a quit line coach at 1-800-QUIT-NOW.
- Sign up for free texting programs or use a mobile app.
- Know your triggers and eliminate them if possible.
- Deal with urges by keeping busy, getting active, engaging in a new hobby, journaling or meditating.
- Remind yourself that smoking causes many diseases, can harm others and is deadly.
- Ask your family and friends to support you and keep you accountable.

### How do I change my eating habits?

- Ask your doctor, nurse, a licensed nutritionist or registered dietitian about how you can come up with a plan that's mindful of your special health needs.
- Eat moderate amounts of food and cut down on saturated fat, trans fat, sugar and salt.

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## Lifestyle Changes to Prevent Stroke

- Bake, broil, roast and boil foods instead of frying.
- Read nutrition labels on packaged meals. Look for the AHA Heart-Check mark on packaging.
- Eat more fruits, vegetables, whole grains, healthy sources of protein, low-fat dairy and healthy oils.
- Use a diary, or if available, a mobile app to track what you're eating. Try to incorporate healthy substitutions or alternatives.

### What about physical activity?

- Set goals and keep reaching for them. Gradually increase your activity to gain even more health benefits.
- Throughout the week, try to do 150 minutes of moderate-intensity physical activity, 75 minutes of vigorous-intensity physical activity, or a combination of both.
  - Moderate-intensity physical activities include a brisk walk or water aerobics. Vigorous-intensity activities could include running, hiking or cycling.
- Also, strive for moderate- to high-intensity muscle-strengthening activity, such as resistance bands or weights, on at least two days per week.



- Short on time? Don't just skip it; instead, break up your activity into smaller times to fit your schedule.
- Look for even small chances to be more active. Take the stairs instead of an elevator, walk to the mailbox, and park farther from your destination.
- If you have a chronic medical condition, check with your health care professional before you start an exercise program.

## HOW CAN I LEARN MORE?

- 1** Call 1-888-4-STROKE (1-888-478-7653) or visit [stroke.org](https://stroke.org) to learn more about stroke or find local support groups.
- 2** Sign up for our monthly *Stroke Connection* e-news for stroke survivors and caregivers at [StrokeConnection.org](https://StrokeConnection.org).
- 3** Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/SupportNetwork](https://stroke.org/SupportNetwork).

### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**What stroke risk factors can I modify?**

**What kind of physical activity can I do safely?**

### MY QUESTIONS:

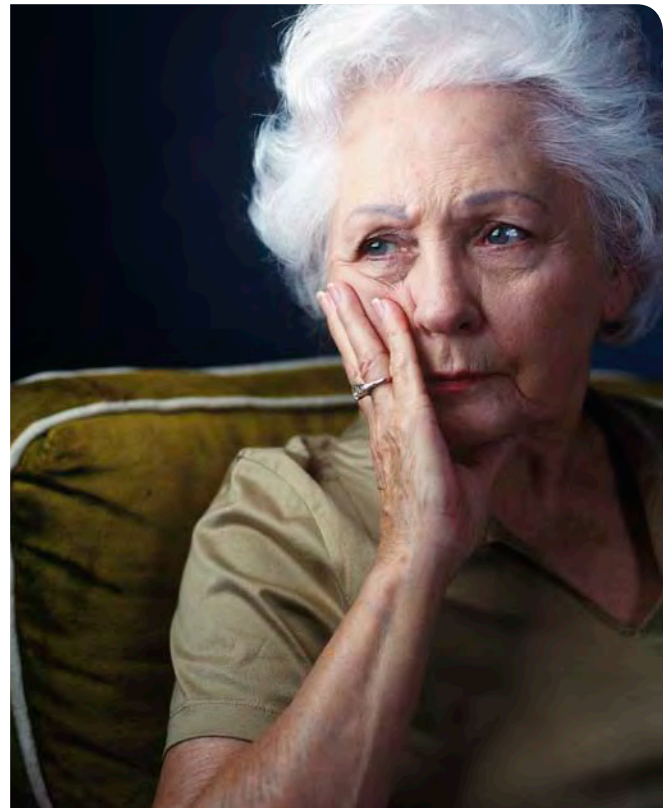
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let's talk about

## 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.

### HOW CAN I LEARN MORE?

- 1 Call **1-888-4-STROKE** (1-888-478-7653) to learn more about stroke or find local support groups, or visit
- 2 **StrokeAssociation.org**. Sign up to get *Stroke Connection* magazine, a free magazine for stroke survivors and caregivers at **strokeconnection.org**.
- 3 Connect with others sharing similar journeys with stroke by joining our Support Network at **strokeassociation.org/supportnetwork**.

### Do you have questions for the doctor or nurse?

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

For example:

**What can my family do to help me when I am emotional?**

**Will these emotional changes improve over time?**

### My Questions:

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





# How Can I Manage Stress?

It's 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.

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## 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.



## HOW CAN I LEARN MORE?

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

## Do you have questions for the doctor or nurse?

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

For example:

**How can family and friends help?**

## My Questions:

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



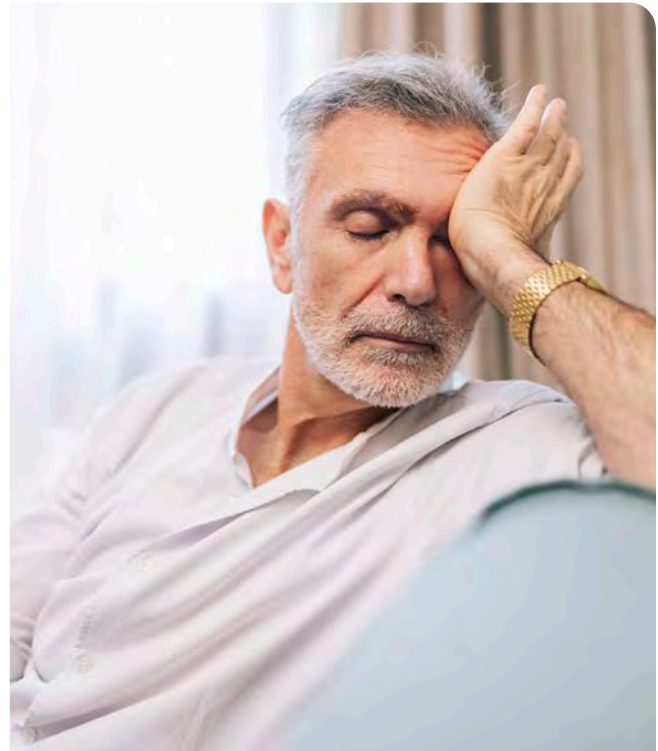
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## Feeling Tired After Stroke

After a stroke, many survivors develop post-stroke fatigue, which means they may feel more tired or lack energy. They can experience this fatigue at any time after their stroke, regardless of what type of stroke they had. For some, this feeling may continue for years, but they usually find ways to make the most of the energy they have.



### Why am I so tired?

Feeling tired after a stroke can be caused by:

- Lifestyle changes - You may have less energy than before because of sleeping poorly, not getting enough exercise, poor nutrition or the side effects of some of your medications.
- Emotional changes – Coping with frustration, anxiety, anger and sadness can be draining. These feelings are common after a stroke. Loss of energy, interest or enthusiasm can occur along with a depressed mood.
- Physical changes – Stroke survivors often must work harder to make up for the loss of normal functions. You may have as much energy as before, but you could be using it differently. Because of the effects of your stroke, things such as 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.

- Depression – Depression is very common after a stroke, but the good news is that it's treatable. Depression can occur right away or months or even years later. Symptoms include significant lack of energy, enthusiasm, motivation, plus problems concentrating or finding enjoyment in anything. Talk to your health care professional about an evaluation for depression if tiredness continues.

### Diagnosis

Your health care professional can evaluate any medical reasons for your tiredness. They can also check if your fatigue could be a side effect of your medication.

Tell your health care professional how you're feeling and make sure you have had an up-to-date physical. Be open and honest and explain that the symptoms you are experiencing started after your stroke.

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## Feeling Tired After Stroke

### How can I increase my energy?

- Follow your health care team's recommendations closely and be sure to ask for help whenever needed.
- Celebrate your successes. Give yourself credit when you accomplish something. Look at your progress, not at what's left to be done.
- Talk to your health care provider about your energy level, try to get plenty of sleep at night.
- Learn to relax. Exerting too much energy may leave you tense, anxious and frustrated. All this takes more energy.
- Do something you enjoy every day. A positive attitude or experience helps boost energy levels.
- Be social. It's very important to get back into the "swing of things" and stay involved with the people you know. Go out into the community and interact with friends, family and other people.
- Physical activity is important. With permission from your health care professional, consider joining a health and wellness program.



### HOW CAN I LEARN MORE?

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- 2** Sign up for our monthly *Stroke Connection* e-news for stroke survivors and caregivers at [StrokeConnection.org](https://StrokeConnection.org).
- 3** Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/SupportNetwork](https://stroke.org/SupportNetwork).

#### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**What can I do to decrease my tiredness?**

**Could clinical depression be causing my tiredness?**

**Are the medications I take causing my fatigue?**

#### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](https://stroke.org/LetsTalkAboutStroke) to learn more.





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**Recovery**

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## Stroke Rehabilitation

There is life – and hope – after stroke. Rehabilitation (rehab) can build your strength, capability and confidence. It can help you continue our daily activities despite the effects of your stroke.

The American Stroke Association recommends an inpatient rehabilitation facility (IRF) when possible. In an IRF, the stroke survivor must be capable of doing three hours of therapy five days a week. They must be medically stable. IRF's provide hospital-level care that is physician directed with 24-hour specialized nursing care.

Some survivors may get rehab in skilled nursing facilities (SNF), long-term acute care facilities, nursing homes, outpatient clinics and in-home care through a home health agency. Patients may receive care in one or more settings during their recovery.



Stroke rehabilitation can be hard work. But survivors who've been there will tell you it's well worth it.

### What is stroke rehabilitation?

After a stroke, you may have to change or relearn how you live day to day. Getting quality rehab from a strong team of therapists leads to better recovery. It can also make a positive difference in other areas of your health.

The goal of rehab is to become as independent as possible. To do so means working on physical and communication functions harmed by the stroke. Making healthy lifestyle changes to prevent another stroke is another goal.

### Who will be a part of my rehabilitation program?

Rehabilitation is a team effort. This team communicates about and coordinates the care to help achieve your goals. Your physician and neurologist are on the team, others may include:

- **Physiatrist** — A medical doctor specializing in stroke rehab.
- **Physical therapist (PT)** — PTs work to get you as mobile and as independent as possible. They help improve major physical and sensory deficits. The focus on walking, balance and coordination.

- **Occupational therapist (OT)** — OTs help you with daily activity skills (bathing, toileting, eating, driving).
- **Rehabilitation nurse** — A nurse who coordinates your medical support needs throughout rehab.
- **Speech-language pathologists (SLP)** — SLPs help with speech and language skills and swallowing disorders.
- **Recreation therapist (RT)** — RTs help with adapting activities you enjoyed before the stroke. They may introduce new ones, too.
- **Psychiatrist or psychologist** — Stroke may bring emotional and life changes. These health care providers can help you adjust.
- **Vocational rehabilitation counselor** — This specialist evaluates your work-related abilities. They help you make the most of your skills to return to work.

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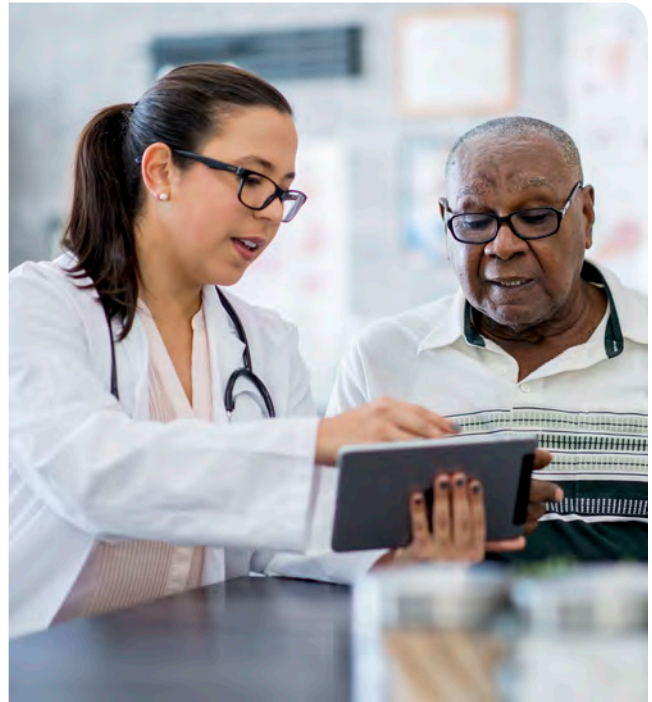
## Stroke Rehabilitation

### What will I do in rehabilitation?

Rehab programs focus on assessing and improving:

- Activities of daily living such as eating, bathing and dressing.
- Mobility (getting from bed to chair, walking, climbing stairs or using a wheelchair).
- Communication skills in speech and language.
- Cognitive skills such as memory or problem solving.
- Social skills, interacting with other people.
- Psychological functioning to improve coping skills and treatment to overcome depression, if needed.

The rehabilitation team meets weekly to check on progress. Part of rehab is working on recovery. Another part is learning to adapt for deficits that may not fully recover.



### HOW CAN I LEARN MORE?

- 1** Call 1-888-4-STROKE (1-888-478-7653) or visit [strokeassociation.org](https://strokeassociation.org) to learn more about stroke or find local support groups.
- 2** Sign up for **Stroke Connection**, a free magazine for stroke survivors and caregivers, at [strokeconnection.org](https://strokeconnection.org).
- 3** Connect with stroke survivors and caregivers by joining our Support Network at [strokeassociation.org/supportnetwork](https://strokeassociation.org/supportnetwork).

#### Do you have questions for the doctor or nurse?

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

For example:

**How can I continue to improve my skills after formal rehab ends?**

#### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices to reduce your risk, manage disease or care for a loved one. Visit [strokeassociation.org/letstalkaboutstroke](https://strokeassociation.org/letstalkaboutstroke) to learn more.



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## 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.

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### 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.

### HOW CAN I LEARN MORE?

- 1 Call **1-888-4-STROKE** (1-888-478-7653) to learn more about stroke or find local support groups, or visit **StrokeAssociation.org**.
- 2 Sign up to get *Stroke Connection* magazine, a free magazine for stroke survivors and caregivers at **strokeconnection.org**.
- 3 Connect with others sharing similar journeys with stroke by joining our Support Network at **strokeassociation.org/supportnetwork**.

### Do you have questions for the doctor or nurse?

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

For example:

**What living arrangement would you recommend for me?**

**Is there a caregiver or stroke support group available in my community?**

### My Questions:

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





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# 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?

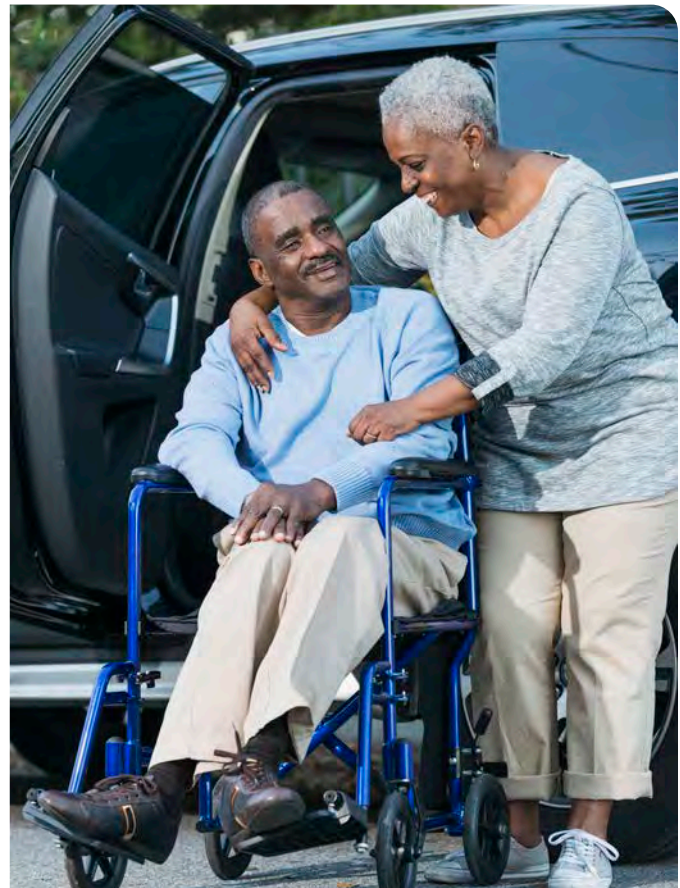
Injury to the brain may change how you do things. Many stroke survivors may develop some type of cognitive changes after their stroke. This may include problems with memory, judgment, problem-solving or a combination of these. Some survivors may also experience trouble with vision due to their stroke. Certain medications used for management of pain, seizures or other post-stroke related conditions can also affect your level of alertness and may impact your ability to drive. So before you drive again, think carefully about how these changes may affect safety for you, your family and others.

## How can a stroke affect the way I drive?

Often, survivors are unaware of all the effects of their stroke and their impact on their driving abilities. You may feel you're able to drive even when it's not safe for you to do so. It's important before you begin driving again that you've been cleared to do so by your health care professional. 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 any 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 it's safe for me to 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 and ask for the Office of Driver Safety. Ask what rules apply to individuals who've had a stroke.
- Take a driving test. 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). Contact community rehabilitation centers or your local State Department of Motor Vehicles office.

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- 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've seen changes in your communication, thinking, judgment or behavior that should be evaluated before you drive again. Family members often see what others don't.

### What if I can't drive after a stroke?

- Even if you're not able to drive your vehicle as it was before your stroke, the right modifications can help you regain confidence and independence on the road. Contact a rehabilitation specialist in your area to help assess your ability to operate a motor vehicle. Look for certified driver rehabilitation specialists who can also evaluate whether modifications will be necessary or helpful.
  - If you need help paying for recommended modifications, state and other government programs can help. For example, the National Mobility Equipment Dealers Association can help you explore mobility equipment options, locate dealers and funding sources and more.



- If safety demands you put down your car keys, there are still many resources available to help you get around. If your community has public transportation, it may also offer free paratransit services for those with disabilities. Many communities also have voucher or volunteer-based transportation programs that offer low- or no-cost transportation. To find more transportation options, search by your location through the National Aging and Disability Transportation Center ([nadt.org](https://nadt.org)).

## HOW CAN I LEARN MORE?

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- 2** Sign up for our monthly *Stroke Connection* e-news for stroke survivors and caregivers at [StrokeConnection.org](https://StrokeConnection.org).
- 3** Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/SupportNetwork](https://stroke.org/SupportNetwork).

### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**When should I test my driving ability?**

**Is my driving restriction permanent?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](https://stroke.org/LetsTalkAboutStroke) to learn more.

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## Being a Stroke Family Caregiver

People who assist stroke survivors are often called **caregivers**. It can be the spouse, family members or friends. Often, one person — spouse, adult child or parent — provides most of the care.

It's important that caregivers and stroke survivors be "care partners." The challenges to adjust to your new role may be easier if both share in decision-making. It's also important to share how you're feeling.



### What should a stroke caregiver do?

There is no "job description" for caregivers. Each caregiver's responsibilities vary with the unique needs of the stroke survivor. Role changes and new skills may need to be learned.

Caregivers may:

- Provide physical help with personal care and transportation.
- Manage financial, legal and business affairs.
- Monitor behavior to ensure safety.
- Manage housework and make meals.
- Coordinate health care and monitor or give medications.
- Help the survivor maintain and improve learned rehab skills.
- Provide emotional support for the stroke survivor and family members.
- Encourage the stroke survivor to continue working toward recovery and be as independent as possible.

### Is there assistance for caregivers?

Providing care for a stroke survivor can be very rewarding. But it also can be stressful and frustrating when you suddenly become a caregiver. To be successful, you must also take care of your needs.

Breaks are important for you and the stroke survivor.

Depending on the severity of the stroke, the role of caregiver may be too much for one person. It's important to rely on others when you need to. It can ease the stress of caring for your loved one.

Help may come from family, friends, your place of worship, government and nonprofit agencies and community resources.

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
- **Home health care aide service** — in-home, part-time medical services ordered by a health care professional
- **Homemaker and personal care support** — supervised, trained people who help prepare meals and do household chores
- **Respite care** — short-term relief for caregivers. It can be for a few hours, days or even weeks. Care may be provided at home, in a health care setting or adult day care.
- **Stroke support group** — education and emotional support for stroke survivors and their family caregivers

(continued)





**American  
Stroke  
Association.**  
A division of the  
American Heart Association.

## Let's Talk About Being a Stroke Family Caregiver

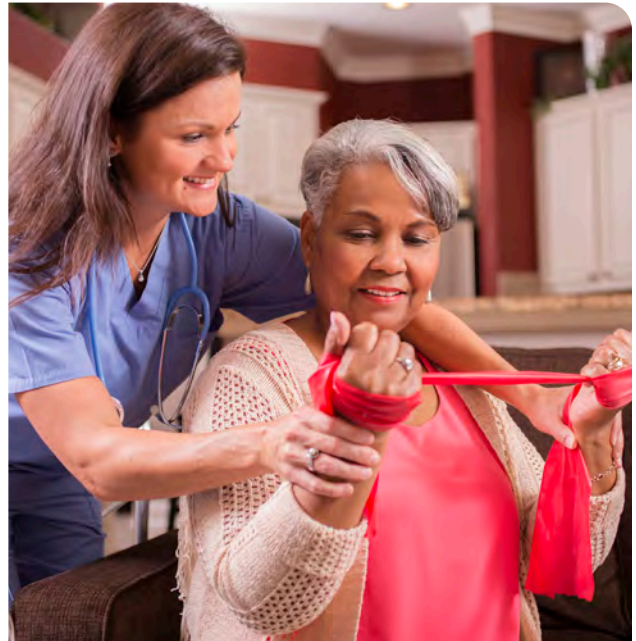
### Is training available for family caregivers?

A good place to start is with your local Administration on Aging. Visit [eldercare.acl.gov](http://eldercare.acl.gov) or call 800-677-1116 to find an office near you.

You can contact the Family Caregiver Alliance at 800-445-8106 or visit [caregiver.org](http://caregiver.org). They can provide information, education and support for family caregivers, including the Family Care Navigator, a state-by-state list of services and assistance.

The Family Caregiver Alliance also offers access to more than 40 free, recorded webinars on caregiver topics under categories of daily care, planning for care and self-care. Visit the [FCA webinar library](#) to view all webinars available. You can also visit the [FCA's YouTube channel](#), which offers numerous caregiving topics and videos in English and other languages, including Chinese, Mandarin, Spanish and Vietnamese.

**Caregiver Action Network's Caregiver Video Resource Center** has videos of caregivers talking about their experiences and what they've learned. In these videos, family members share discoveries and describe their journeys through caring for loved ones. The Caregiver Action Network also offers several [instructional videos](#) for hands-on care.



Hiring a home health care aide can give you a break as a full-time primary caregiver.

### HOW CAN I LEARN MORE?

- 1 Call 1-888-4-STROKE (1-888-478-7653) or visit [stroke.org](http://stroke.org) to learn more about stroke or find local support groups.
- 2 Sign up for our monthly *Stroke Connection* e-news for stroke survivors and caregivers at [StrokeConnection.org](http://StrokeConnection.org).
- 3 Connect with others who have also had an experience with stroke by joining our Support Network at [stroke.org/SupportNetwork](http://stroke.org/SupportNetwork).

#### Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**Is there a stroke survivor support group or caregiver support group in my area?**

**Do other organizations support caregivers?**

#### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices to manage your condition or care for a loved one. Visit [stroke.org/LetsTalkAboutStroke](http://stroke.org/LetsTalkAboutStroke) to learn more.