



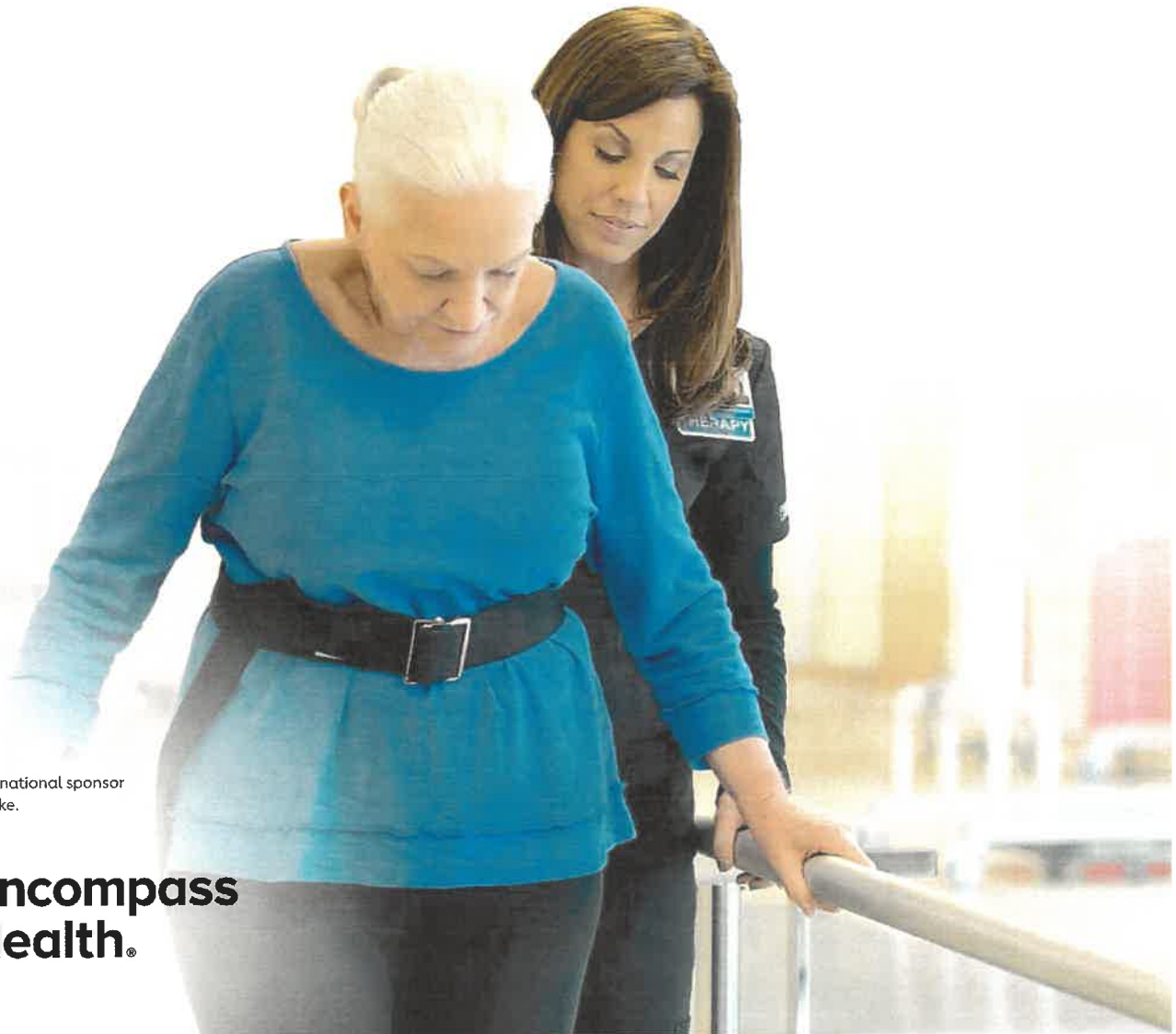
American Stroke Association.  
A division of the American Heart Association.

Together to End Stroke®

**A GUIDE FOR PATIENTS  
AND CAREGIVERS**

# LIFE AFTER STROKE

Our Path Forward



Encompass Health is a national sponsor  
of Together to End Stroke.



**Encompass  
Health.**

## INTRODUCTION

**THERE IS LIFE – AND HOPE – AFTER STROKE. WITH TIME, NEW ROUTINES WILL BECOME SECOND NATURE. REHABILITATION CAN BUILD YOUR STRENGTH, CAPABILITY AND CONFIDENCE. IT CAN HELP YOU CONTINUE YOUR DAILY ACTIVITIES DESPITE THE EFFECTS OF YOUR STROKE.**

If you are the caregiver, family member or friend of a stroke survivor, your role is vital. You should know the prevention plan and help your loved one to comply with the plan. With a committed health care team and a rehabilitation plan specific to their needs, most stroke survivors can prevent another stroke and thrive.

We hope this guide will help you and your loved ones understand the effects of stroke and how to maximize your rehabilitation and recovery.



# WHAT IS A STROKE?

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Stroke is an event that affects the arteries of the brain. A stroke occurs when a blood vessel bringing blood to the brain gets blocked or **ruptures** (bursts). This means that the area of the brain the blocked or ruptured blood vessel supplies can't get the oxygen and nutrients it needs. Without oxygen, nerve cells can't function.

Your brain controls your ability to move, feel, think and behave. Brain injury from a stroke may affect any of these functions. Several factors affect the ways people experience a stroke. They include:

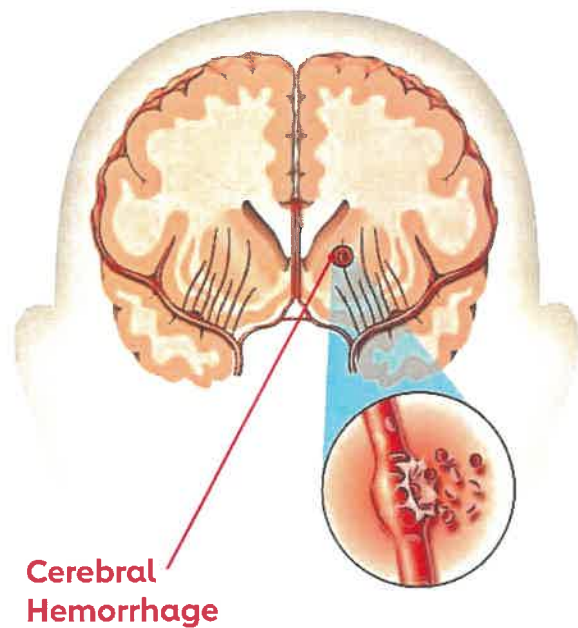
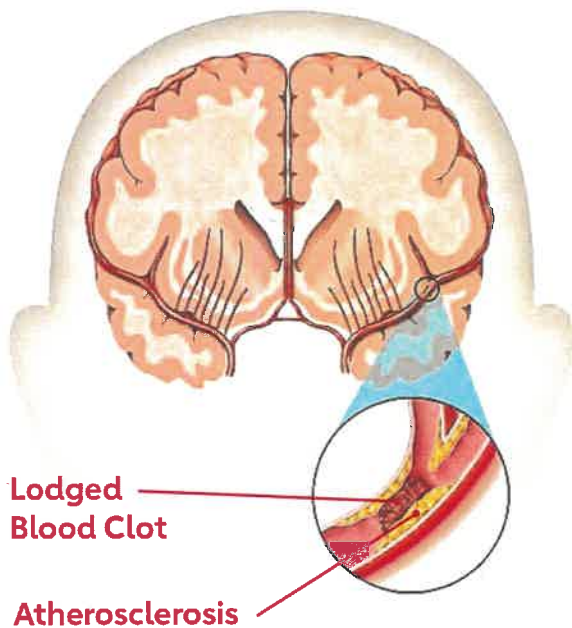
- **THE LOCATION OF THE BLOOD VESSEL THAT IS AFFECTED**
- **THE AREA AND EXTENT OF THE BRAIN INJURY**
- **THE TYPE OF STROKE (ISCHEMIC VS. HEMORRHAGIC)**



## TYPES OF STROKE

**Ischemic stroke** occurs when a clot blocks a vessel supplying blood to the brain. The artery becomes narrowed or clogged, cutting off blood flow to brain cells. Ischemic strokes are the most common type of stroke.

**Hemorrhagic stroke** happens when a blood vessel bursts (ruptures) in the brain. This type of stroke may affect large arteries in the brain or the small blood vessels deep within the brain. The rupture keeps the surrounding areas of the brain from getting needed oxygen. Hemorrhagic strokes are less common than ischemic strokes.

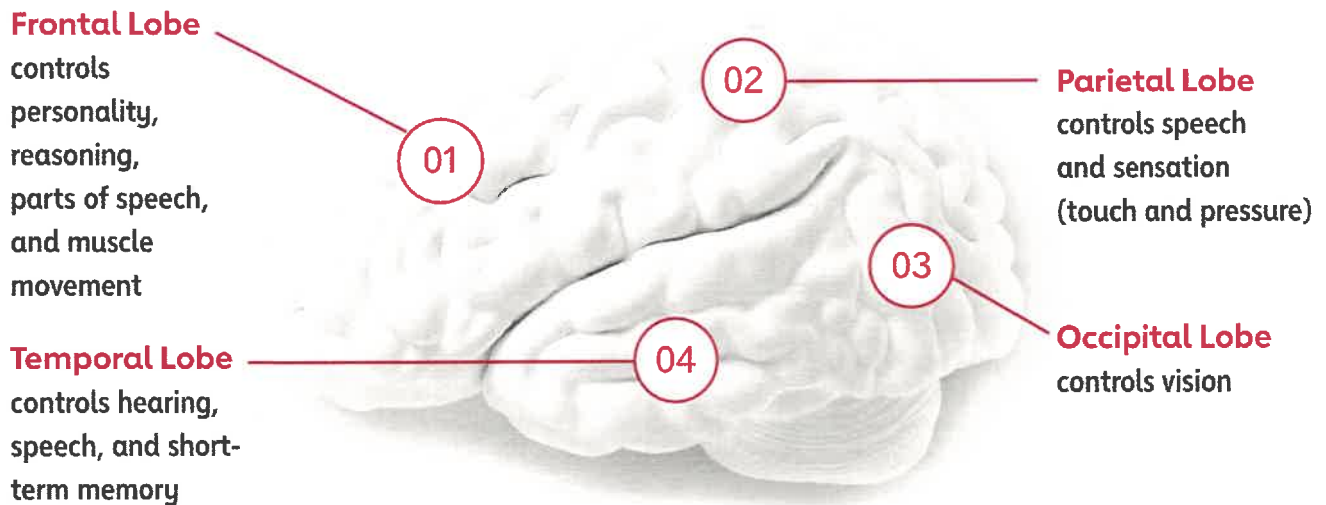


**Transient ischemic attacks (TIAs)** are often called “warning strokes.” TIAs produce symptoms just like stroke, but typically last a shorter amount of time. They don’t usually cause lasting damage. But they are major predictors of future stroke. If you suspect you’ve had or are having a TIA, don’t ignore it! **Call 9-1-1.** Get immediate medical attention, even if the symptoms go away.

# ABOUT MY STROKE

Talk with your health care team to learn where in the brain your stroke happened and mark it on the image below.

You can learn how stroke in different areas of the brain may affect the survivor at [strokeconnection.org/about-our-brains](https://strokeconnection.org/about-our-brains).



## My stroke was:

- Right side of the brain
- Left side of the brain
- Due to blockage in a blood vessel (ischemic)
- Due to a damaged blood vessel bleeding into brain tissue (intracerebral hemorrhage)
- Due to a damaged blood vessel bleeding into the area between the brain and its lining (subarachnoid hemorrhage)

The cause of my stroke was:

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The exact cause of my stroke isn't known, but it may have been because of:

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# DIAGNOSIS AND EARLY TREATMENT


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When someone has symptoms of a stroke or a TIA, a doctor will gather information and make a diagnosis. They will review the events that have occurred and will:


- Take a medical history
- Do a physical and neurological examination
- Have certain laboratory (blood) tests done
- Order a CT and/or MRI scan of the patient's brain
- Study the results of other diagnostic tests that might be needed

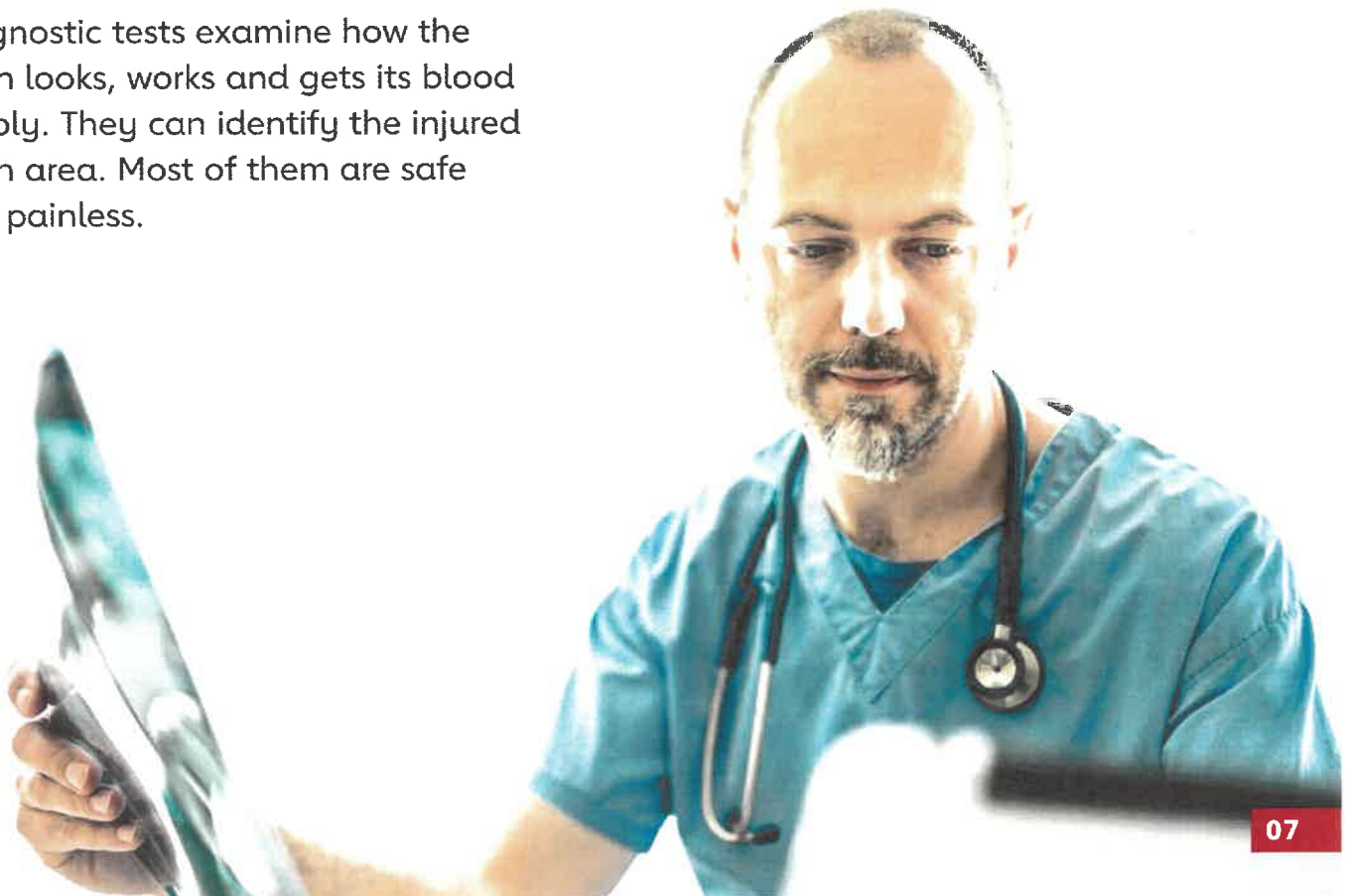
Diagnostic tests examine how the brain looks, works and gets its blood supply. They can identify the injured brain area. Most of them are safe and painless.

**Diagnostic tests you may have fall into three categories.**

 **Imaging tests** give a picture of the brain like X-rays (CT scan or MRI).

 **Electrical tests** record the electrical impulses of the brain.

 **Blood flow tests** show any problem that may cause changes in blood flow to the brain.



## EARLY TREATMENT

### Early treatment of ischemic stroke

Ischemic stroke happens when a blood clot blocks a vessel supplying blood to the brain. It's the most common type, accounting for 87% of all strokes. The treatment goal is to dissolve or remove the clot.

To *dissolve* a clot, a medicine called alteplase (tPA) is given through an IV (intravenous line). It works by dissolving the clot so blood can flow again. Alteplase can save lives and reduce the long-term effects of stroke. It needs to be given within three hours of the start of stroke symptoms (up to 4.5 hours for some eligible patients).

To *remove* a clot involves a procedure called mechanical thrombectomy. Doctors use a wire-cage device called a stent retriever to remove a large blood clot. They thread a catheter through an artery in the groin up to the blocked artery in the brain. The stent opens and grabs the clot, allowing doctors to remove the stent with the trapped clot. Special suction tubes may also be used to remove the clot.

This procedure must be done within up to six to 24 hours of stroke symptom onset and after the patient has received alteplase, if eligible. Patients must meet certain criteria to be eligible for this procedure.

### Early treatment of hemorrhagic stroke

Hemorrhagic stroke happens when a blood vessel bursts (ruptures) and bleeds within or around the brain.

Blood vessels can become weak due to a ballooning of part of the vessel (aneurysm). Other times there may be a tangle of blood vessels within the brain that didn't form normally, making them weak (arteriovenous malformation or AVM). When high blood pressure isn't controlled, it puts strain on weakened blood vessels that can lead to the ruptures that cause stroke. The treatment goal is to stop the bleeding.

For some patients, a small tube (catheter) with a camera is threaded through a major artery in an arm or leg and guided to the area of the bleed in the brain. The camera gives the surgeon a detailed view of the area to help fix the problem. Once the catheter is guided to the source of the bleeding, it leaves a mechanism, such as a coil, to prevent further rupture. This type of procedure is less invasive than standard surgical treatment.

Sometimes surgery is required to secure a blood vessel at the base of the aneurysm.