

Did you know?

- In 2020, 1 in 6 deaths from cardiovascular disease was due to stroke.
- Every 40 seconds, someone in the United States has a stroke. Every 3.5 minutes, someone dies of stroke.
- Every year, more than 795,000 people in the United States have a stroke. About 610,000 of these are first or new strokes.

What is Stroke?

A stroke, sometimes called a **brain attack**, occurs when something **blocks blood supply** (oxygen) **to part of the brain** or when a **blood vessel in the brain bursts**. In either case, parts of the brain become damaged or die.

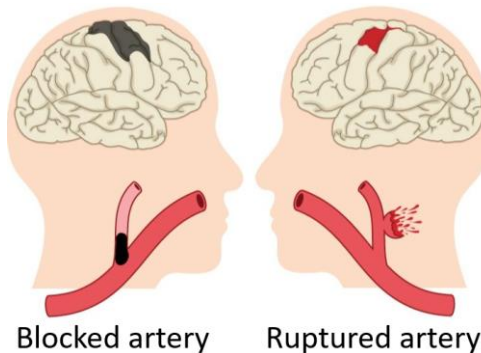
What are the causes of stroke?

Based on the causes, there are two types of stroke:

1. Ischemic stroke

Blood clots, plaque (fatty deposits) or other particles **block the blood vessels** to the brain.

Most strokes are ischemic strokes.



Blocked artery

Ruptured artery

2. Hemorrhagic stroke

An artery in the brain **leaks blood** or **ruptures**.

High blood pressure is the most common cause of this type of stroke.

Am I at risk of developing Stroke?

Anyone can have a stroke at any age, but certain things can increase your chances of stroke.

Health conditions that increase the risk

- Previous stroke or transient ischemic attack (TIA)
- High blood pressure
- High cholesterol
- Heart disease: such as coronary heart disease and irregular heartbeat
- Diabetes
- Obesity
- Sickle cell disease

Behaviors that increase the risk of having stroke

- Unhealthy diet: eating a diet high in saturated fats, trans fat, cholesterol, and salt (sodium).
- Physical inactivity
- Drinking too much alcohol
- Tobacco use

Other factors

- **Family history** of stroke and other related conditions
- **Age:** the older you are, the more likely you are to have a stroke. The chance of having a stroke about doubles every 10 years after age 55.
- **Sex:** stroke is more common in women than men
- **Race or ethnicity:** Black, Hispanic, American Indian, and Native Alaskan are at higher risk







What are the signs and symptoms of stroke?

Warning signs of stroke

Before developing stroke, some people have **Transient Ischemic Attack (TIA)**, also known as “mini stroke”.

- TIA happens when **blood flow to the brain is briefly interrupted**.
- TIA usually **lasts a few minutes**. Most signs and symptoms disappear within an hour or within 24 hours, with no permanent damage.
- The signs and symptoms of a TIA resemble those found in a stroke.
- More than a third of people who have a TIA and don't get treatment have a major stroke within 1 year. As many as **10% to 15% of people will have a major stroke within 3 months of a TIA**.

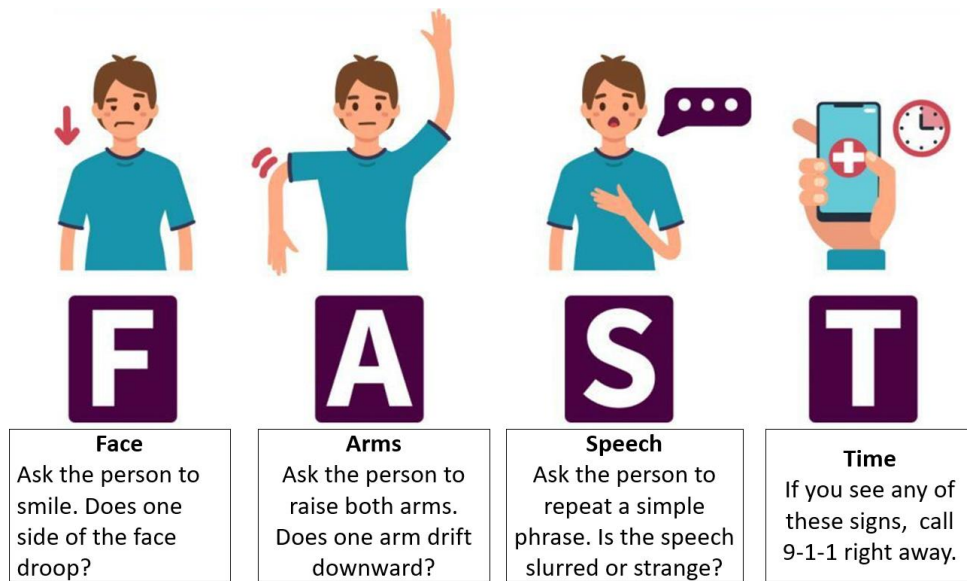
The most common signs of stroke are:

					
Trouble walking, dizziness , or problem with balance	Trouble seeing or blurred vision on one or both eyes	Numbness or weakness in the face, arm or leg, especially on one side of the body		Confusion or trouble speaking or understanding	Severe headache with no known cause

What should I do in case of stroke?

- The stroke treatments that work best are available only **if the stroke is recognized and diagnosed within 3 hours** of the first symptoms.
- If you think you or someone you know has had a TIA, **tell a health care team about the symptoms right away**. Unfortunately, because TIAs clear up, many people ignore them.

If you think someone may be having a stroke, **act F.A.S.T.** and **do the following test:**



- **Note the time** when any symptoms first appear. This information helps health care providers determine the best treatment for each person.
- **Do not drive to the hospital** or let someone else drive you. **Call 9-1-1 for an ambulance** so that medical personnel can begin life-saving treatment on the way to the emergency room.

How to is Stroke treated?



- Quick treatment is critical for stroke. Your stroke treatment begins the moment emergency medical services (EMS) arrive to take you to the hospital.
- Stroke patients who are taken to the hospital in an ambulance may get diagnosed and treated more quickly than people who do not arrive in an ambulance.

- Once at the hospital, Brain scans will show what type of stroke you had.
- You may receive emergency care, treatment to prevent another stroke, rehabilitation to treat the side effects of stroke, or all three.

1. Treating ischemic stroke

- If you **get to the hospital within 3 hours** of the first symptoms, you may get a type of medicine called a thrombolytic (a “clot-busting” drug) to break up blood clots.
- Studies show that patients with ischemic strokes who receive tPA are more likely to recover fully or have less disability than patients who do not receive the drug.
- Patients treated with tPA are also less likely to need long-term care in a nursing home.
- Doctors may also treat ischemic stroke with other medicines, such as blood thinners, as well as surgery and other procedures to open up a blocked or narrowed artery.

2. Treating Hemorrhagic Stroke

- Emergency treatment of hemorrhagic stroke focuses on **controlling the bleeding and reducing pressure in the brain** caused by the excess fluid.
- Treatment options include medicines, surgery or other procedures to stop the bleeding and save brain tissue.

How do I recover from a stroke?

1. Stroke rehabilitation

- After emergency treatment, stroke care focuses on helping you recover as much function as possible and return to independent living.
 - The impact of the stroke depends on the area of the brain involved and the amount of tissue damaged.
 - Most stroke survivors go to a **rehabilitation program**. Your doctor will recommend the most rigorous therapy program you can handle based on your age, overall health and degree of disability from the stroke.
 - Your doctor will take into consideration your lifestyle, interests and priorities, and the availability of family members or other caregivers.
- Rehabilitation after a stroke **begins in the hospital**, often within a day or 2 after the stroke. It helps ease the transition from hospital to home and can help prevent another stroke.
 - After discharge, you might continue your program in a rehabilitation unit of the same hospital, another rehabilitation unit or skilled nursing facility, as an outpatient, or at home.

Recovery time after a stroke is different for everyone—it can take weeks, months, or even years.

Some people recover fully, but others have long-term or lifelong disabilities, such as:

- Weakness, paralysis, and problems with balance or coordination.
- Pain, numbness, or burning and tingling sensations.
- Fatigue, which may continue after you return home.
- Inattention to one side of the body, also known as neglect; in extreme cases, you may not be aware of your arm or leg.
- Urinary or bowel incontinence.
- Speech problems or difficulty understanding speech, reading, or writing.
- Difficulty swallowing.
- Memory problems, poor attention span, or difficulty solving problems.
- Problems with your vision
- Depression, anxiety, or mood swings with emotional outbursts.
- Difficulty recognizing limitations caused by the stroke.

Rehabilitation can include:

- Speech therapy helps people who have problems producing or understanding speech.
- Physical therapy uses exercises to help you relearn movement and coordination skills you may have lost because of the stroke.
- Occupational therapy focuses on improving daily activities, such as eating, drinking, dressing, bathing, reading, and writing.

Remember!

Early diagnosis and treatment determine the outcome of your stroke care. Patients who are diagnosed and treated early are more likely to recover fully or have less disability.

2. Coping and support

- A stroke is a life-changing event that can affect your emotional well-being as much as your physical function.
- You may sometimes feel helpless, frustrated, depressed and apathetic. You may also have mood changes.

Maintaining your self-esteem, connections to others and interest in the world are essential parts of your recovery. Several strategies may help you and your caregivers, including:

Don't be hard on yourself.

- Accept that physical and emotional recovery will involve tough work and that it will take time.
- Aim for a "new normal," and celebrate your progress.
- Allow time for rest.

Join a support group.

- Meeting with others who are coping with a stroke lets you get out and share experiences, exchange information, and build new friendships.
- Talk with your health care team about local support groups or check with an area medical center.

Seek support from family and friends

- Let your loved ones know how you feel and what they can do to help you, such as by bringing over a meal and staying to eat with you and talk or attending social events or religious activities with you.

- Keep your appointment with your doctor or healthcare provider.
- Therapy and medicine may help with depression or other mental health conditions following a stroke.

3. Prevention of another stroke?

You can help prevent stroke by making healthy choices and controlling any health conditions you may have.

Control your medical conditions

- Check cholesterol: Your doctor should test your cholesterol levels at least once every 5 years.
- High blood pressure
- Diabetes
- Treat heart disease
- If you already have stroke or TIA, work with your health care team to lower the risk of future stroke.

Healthy living

- Choose healthy foods and drinks:
 - Eating foods low in saturated fats, trans fat, and cholesterol and high in fiber can help prevent high cholesterol.
 - Limiting salt (sodium) in your diet can also lower your blood pressure.
- Keep a healthy weight
- Get regular physical activity
- Don't smoke