



# **STROKE 101**

American Stroke Association



# KNOW STROKE & SAVE A LIFE

- What is stroke?
- What are the types of stroke?
- What causes stroke?
- What are transient ischemic attacks?
- How can you reduce your risk of stroke?
- What are the stroke risk factors that can't be changed?
- What are the stroke warning signs?
- How is ischemic stroke treated?


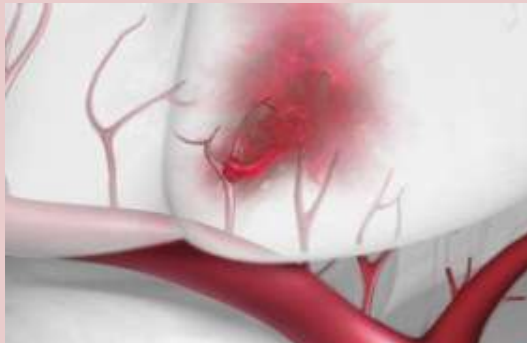


# WHAT IS A STROKE?

A brain injury caused when a blood vessel to the brain becomes blocked or bursts, cutting off blood flow and oxygen to the brain.



# WHAT ARE THE TYPES OF STROKE?

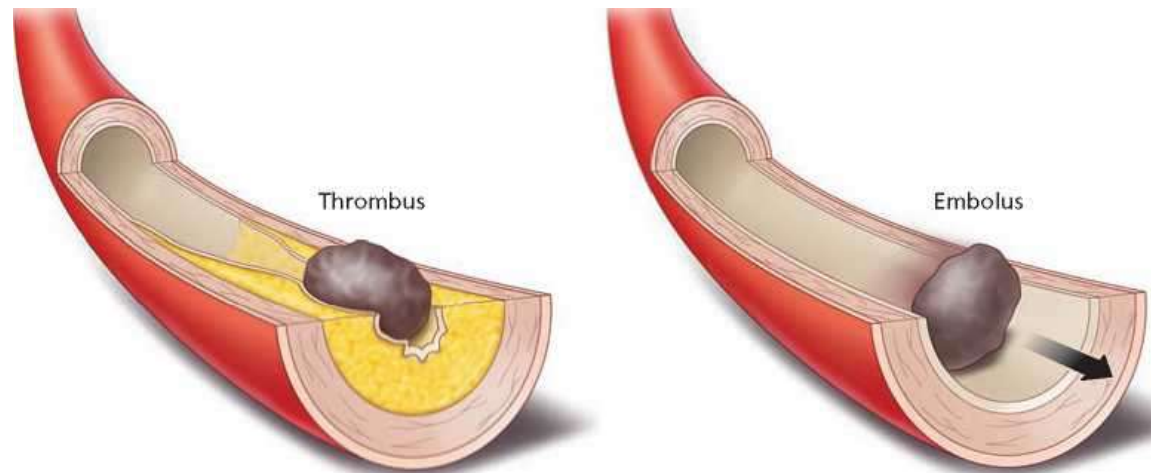
<b>Ischemic Stroke (Blockage)</b>	<b>Hemorrhagic Stroke (Bleeding)</b>
<ul style="list-style-type: none"><li>• 87%</li><li>• Caused by a blockage (clot) in the blood vessels to the brain</li></ul>  <p>© American Heart Association</p>	<ul style="list-style-type: none"><li>• 13%</li><li>• Caused by burst or leaking blood vessels in the brain</li></ul>  <p>© American Heart Association</p>



# WHAT CAUSES ISCHEMIC STROKE?

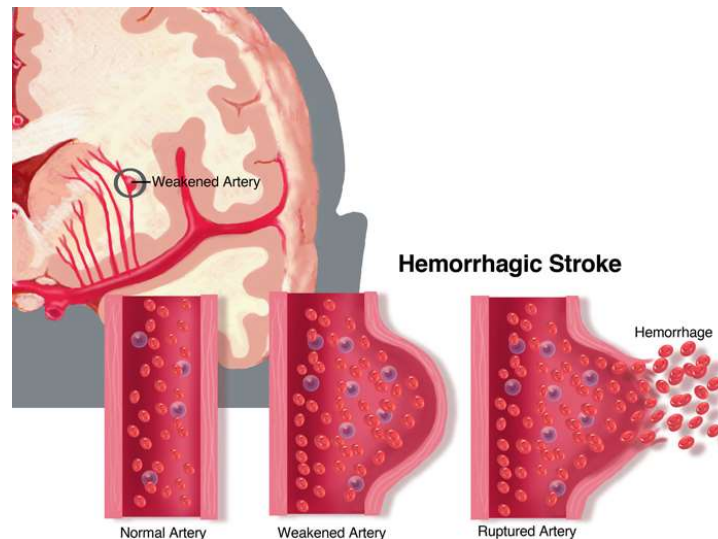
Thrombus or Embolus can occur at the fatty deposits which line the blood vessel wall.

- Thrombus: A blood clot forms at the fatty deposit
- Embolus: A traveling particle gets stuck in a small vessel



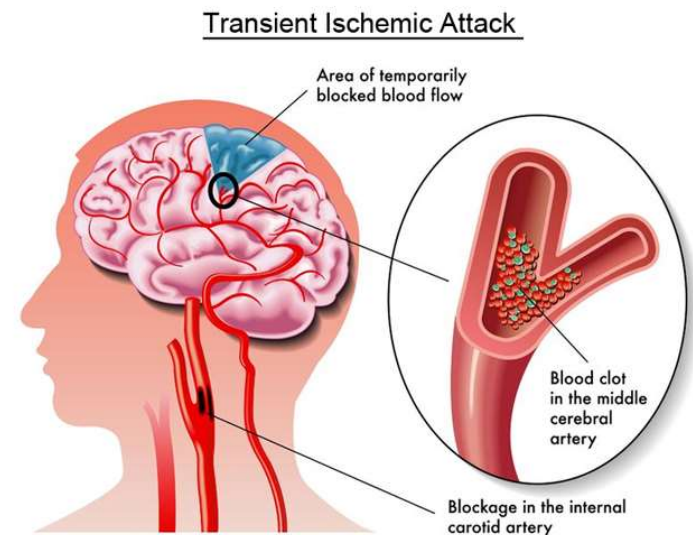
# WHAT CAUSES HEMORRHAGIC STROKE?

- A Hemorrhagic Stroke is when a weakened blood vessel ruptures.
- Aneurysms: Ballooning of a weakened spot of a blood vessel
- Arteriovenous Malformations (AVMs): Cluster of abnormal blood vessels



# WHAT ARE TRANSIENT ISCHEMIC ATTACKS?

- TIAs are “warning strokes” that can happen before a major stroke
- Blood flow through a brain artery is briefly blocked or reduced
- Symptoms are temporary but similar to those of a full-fledged stroke
- A TIA is a medical emergency



# HOW CAN YOU REDUCE YOUR RISK OF STROKE?

- Control high blood pressure
- Don't smoke
- Consume less sodium
- Lower cholesterol
- Lose excess weight
- Get physically active

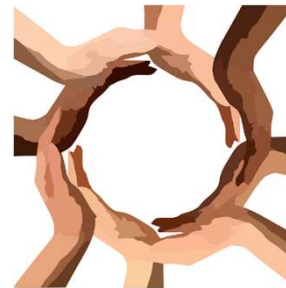
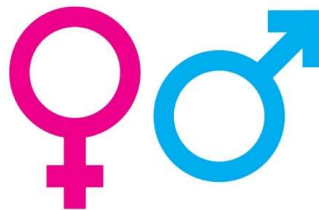


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# WHAT ARE THE STROKE RISK FACTORS THAT CAN'T BE CHANGED?

- Age
- Sex (gender)
- Heredity (family history)
- Race
- Prior stroke, TIA or heart attack



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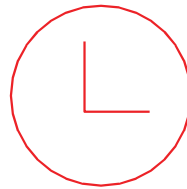
# WHAT ARE THE STROKE WARNING SIGNS?

- Sudden weakness or numbness 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 headaches with no known cause

# RECOGNIZE F.A.S.T



# WHEN STROKE OCCURS, TIMELY TREATMENT IMPROVES RECOVERY



*Every second counts  
in preventing brain  
damage!*

# ISCHEMIC STROKE TREATMENT: DISSOLVE CLOT WITH ALTEPLASE (IV R-TPA)

The benefits of IV alteplase are greatest when given as quickly as possible. Time is brain!



## Benefits

- For patients who can be treated within 3 hours of stroke onset, alteplase (IV r-tPA) can lead to better recovery after stroke
- For select patients who are eligible to be treated up to 4.5 hours after stroke onset, alteplase (IV r-tPA) can also improve outcomes
- Alteplase (IV r-tPA) has been proven to save lives and decrease disability when administered in a timely manner

## Risks

- Bleeding of the brain, gums or other tissues are major risks

# ISCHEMIC STROKE TREATMENT: REMOVE CLOT WITH STENT RETRIEVER

If eligible, patients should receive alteplase (IV r-tPA) before being considered for mechanical thrombectomy treatment (use of stent retriever). Mechanical thrombectomy removes large blood clots that cause ischemic stroke.



## *Benefits*

- *For select patients who are eligible to be treated up to 24 hours after stroke onset, mechanical thrombectomy has proven to be effective in lowering disability from stroke.*

## *Risks*

- *Bleeding (the most common associated risk)*
- *Tearing of the inner lining of the blood vessel*

# LEARN MORE

- Share ASA [stroke prevention, treatment, & recovery resources](#) with family, friends, colleagues & neighbors
- Join the conversation!



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