



American Heart Association | American Stroke Association

Learn and Live.

What You Need to Know About **STROKE**



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What Is Stroke ?

*A stroke occurs
when blood flow to the brain
is interrupted
by a blocked or a burst blood vessel.*



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What Is the Impact of Stroke?

- Stroke is the third leading cause of death in the United States
 - *On average, someone suffers a stroke every 40 seconds*
 - *About 795,000 Americans suffer a stroke each year*
 - *About every 4 minutes, someone dies of a stroke*



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What Is the Impact of Stroke?

(Continued)

- Stroke is a leading cause of serious, long-term disability
- About 6.4 million Americans are stroke survivors
- Americans will pay about \$73.7 billion in 2010 for stroke-related medical costs and lost productivity



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What Are the Types of Stroke ?

- Ischemic Stroke (Blockage)
 - Caused by a blockage in blood vessels in brain
- Hemorrhagic Stroke (Bleeding)
 - Caused by burst or leaking blood vessels in brain



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What Are the Causes of Ischemic Stroke?

- Begins with the development of fatty deposits lining the blood vessel wall
 - *Thrombus*: Development of blood clot at the fatty deposit
 - *Embolus*: Traveling particle too large to pass through a small vessel



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What Are the Causes of Hemorrhagic Stroke?

- Occurs when a weakened blood vessel ruptures
 - Aneurysms: Ballooning of a weakened region of a blood vessel
 - Arteriovenous Malformations (AVMs): Cluster of abnormal blood vessels



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Stroke Risk Factors That Cannot Be Treated

- Age
- Sex
- Race
- Prior stroke
- Family history



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Stroke Risk Factors That Can Be Treated

- Hypertension/High Blood Pressure
- Heart Disease
- Cigarette Smoking
- Transient Ischemic Attacks
- Diabetes
- Elevated Blood Cholesterol/Lipids
- Asymptomatic Carotid Bruits



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Stroke Risk Factors Less *Well-Documented*

- Geographical Location
- Socioeconomic Factors
- Excessive Alcohol Intake
- Certain Kinds of Drug Abuse



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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 (for hemorrhagic stroke)



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Transient Ischemic Attacks (TIAs)

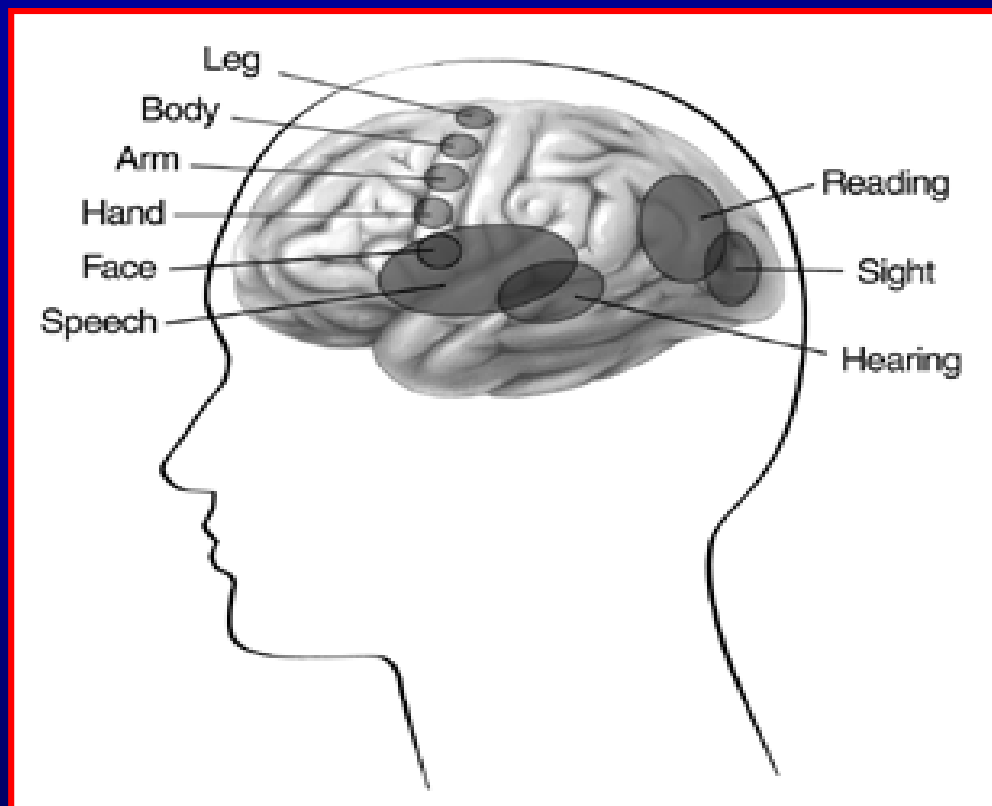
- “Warning strokes” that can happen before a major stroke
- Occur when blood flow through a brain artery is blocked or reduced for a short time
- Symptoms are temporary but similar to those of a full-fledged stroke
- A person who has a TIA is 9.5 times more likely to have a stroke



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What Parts of the Brain Are Affected by Stroke?



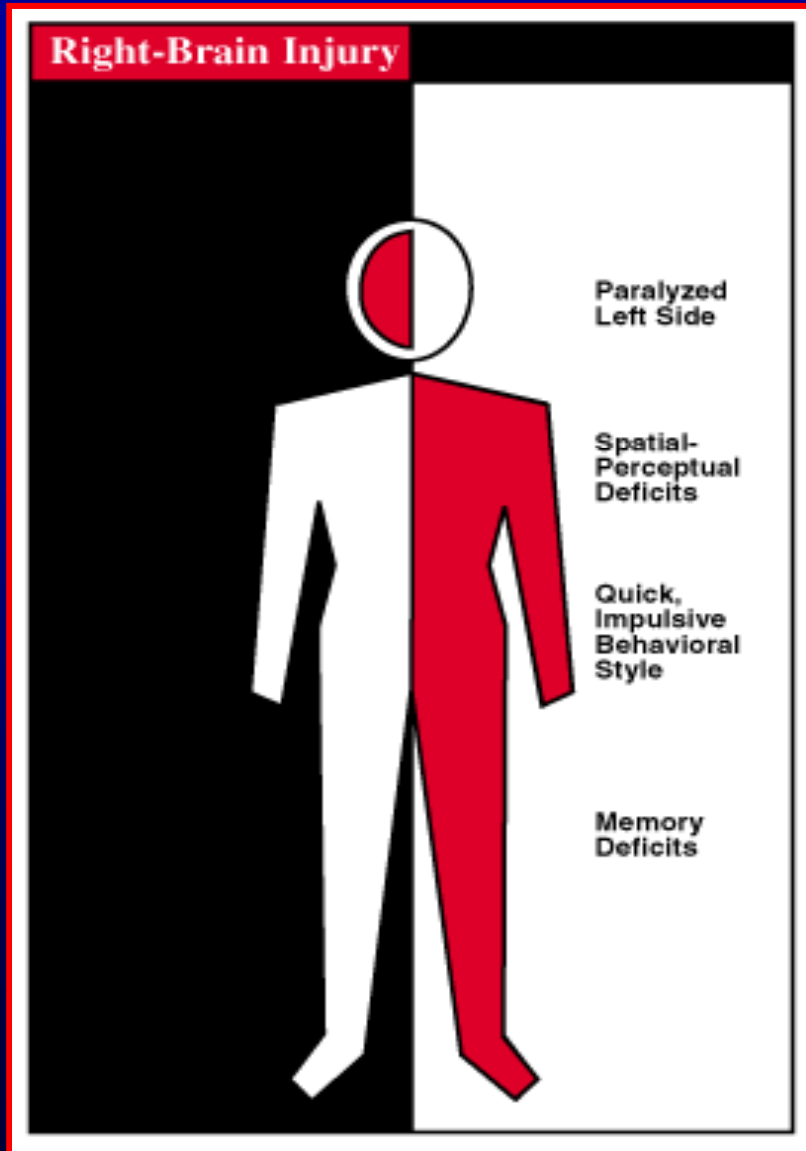


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What Are the Effects of Stroke?

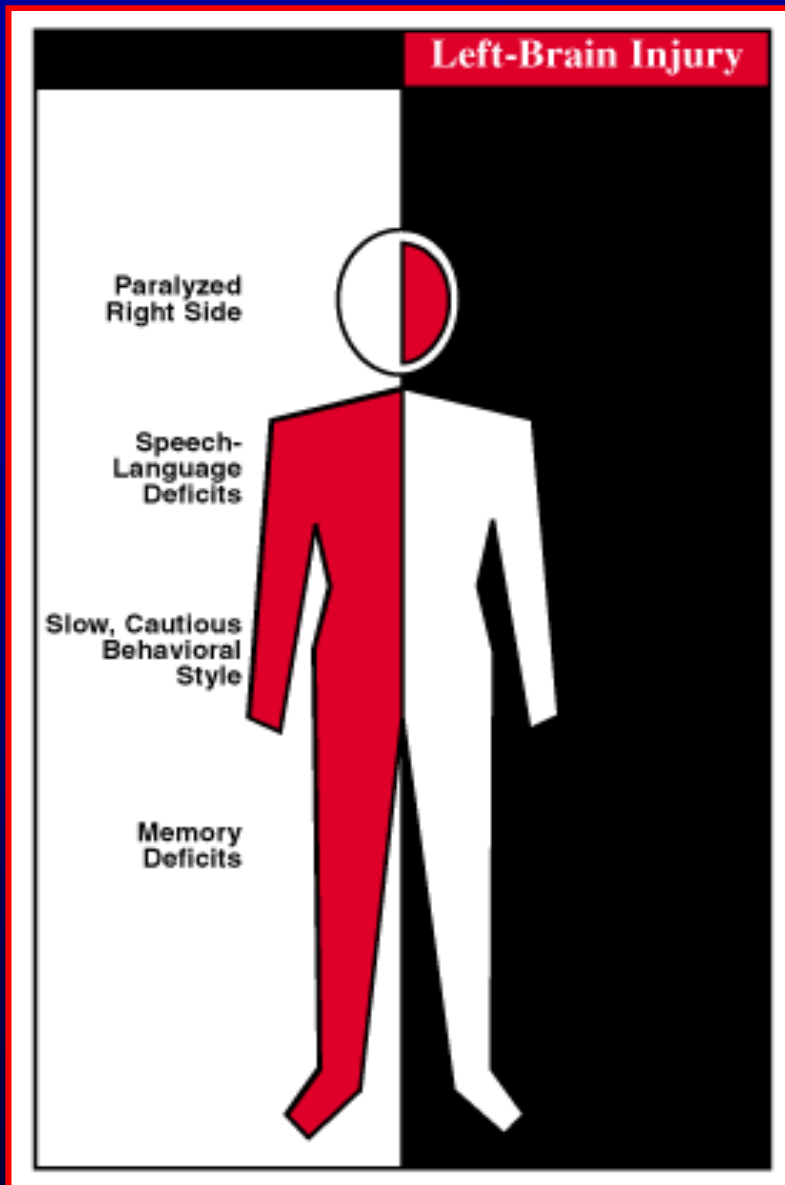
■ Right Brain





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What Are the Effects of Stroke?

- Left Brain



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How Are Strokes Treated?

- Ischemic Stroke
 - *Clot-busters e.g., t-PA*
 - *Anticoagulants – warfarin, aspirin*
 - *Carotid Endarterectomy*
 - *Angioplasty/Stents*

- Hemorrhagic Stroke
 - *Surgical Intervention*
 - *Endovascular Procedures, e.g., “coils”*



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Prevention of Stroke

- Control high blood pressure
- Prevent heart disease
- Stop cigarette smoking
- Recognize signs of TIA and tell physician
- Reduce blood cholesterol levels



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Rehabilitation

- After suffering a stroke, it's important to begin a rehabilitation program as soon as possible



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Types of Rehabilitation Programs

- Hospital programs
- Nursing facilities
- Outpatient programs
- Home-based programs



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Rehabilitation Specialists

- Physician
- Rehabilitation nurse
- Physical therapist
- Speech therapist
- Occupational therapist
- Physiatrist
- Psychiatrist



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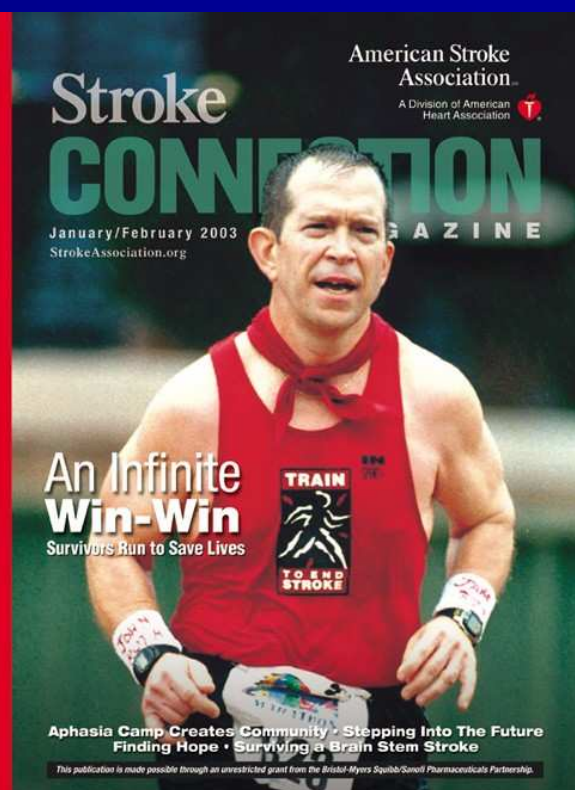
*Are you a stroke survivor,
caregiver, family member
or healthcare provider
who needs information
about stroke?*



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Learn to recognize a stroke.
Time lost is brain lost.

- Stroke is a medical emergency!
- If you notice one or more stroke warning signs,
GET HELP IMMEDIATELY: CALL 9-1-1.



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To Learn More About Stroke...

CALL 1-888-4-STROKE (1-888-478-7653)

Or visit us online at www.StrokeAssociation.org