

Secondary Stroke Prevention Fact Sheet

About Stroke

- A stroke is sometimes thought of as a “brain attack.” A stroke occurs when a blood vessel or vessels carrying oxygen and other nutrients to a specific area of the brain become blocked or suddenly burst, interrupting blood flow to the brain and preventing oxygen from getting to where it’s needed. When the oxygen supply is cut off, brain cells begin to die resulting in the impairment or loss of abilities or functions controlled by those cells in the brain¹
- There are two types of stroke – ischemic and hemorrhagic²
 - An ischemic stroke is the most common type of stroke, occurring in 87%³ of all cases, and is a result of a blocked blood vessel
 - These blockages stem from three conditions: the formation of a clot within a blood vessel of the brain or neck, called thrombosis; the movement of a clot from another part of the body such as the heart to the neck or brain, called embolism; or a severe narrowing of an artery in or leading to the brain, called stenosis⁸
 - A transient ischemic attack (TIA), also known as a “mini-stroke,” produces stroke-like symptoms but is transient in nature. TIA is a precursor for secondary stroke, and one-third of those who have a TIA go on to have a major stroke⁷
 - Hemorrhagic stroke, which accounts for 13% of all strokes, is caused by the rupture of a blood vessel in the brain³
- Common symptoms of a stroke include:³
 - Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
 - Trouble speaking or understanding, sudden confusion
 - Sudden trouble seeing in one or both eyes
 - Trouble walking, dizziness, loss of balance or coordination
 - A sudden headache of unknown cause

Impact of Stroke in the United States

- Stroke is the third-leading cause of death³ and a leading cause of chronic adult disability in the United States³
- Nearly 780,000 Americans suffer stroke each year;³ approximately one-quarter of these strokes are recurrent episodes
- There are approximately 5.8 million stroke survivors in the United States;⁹ 21.5% of people who survive a first stroke or TIA will experience another episode within five years³
- The estimated direct and indirect cost of stroke for 2008 is \$65.5 billion, and includes inpatient care, rehabilitation, follow-up care for lasting disabilities and caregiving.³

Risk Factors and Stroke Prevention

- Risk factors for stroke are divided into two groups, those that are modifiable to reduce your risk and those that are non-modifiable.
 - Modifiable risk factors include: high blood pressure, heart disease, diabetes mellitus (Type 2), high cholesterol, atrial fibrillation and lifestyle factors such as smoking, excessive alcohol intake, obesity and sedentary lifestyle

- Non-modifiable risk factors include: age, gender, race, family or personal history of stroke/TIA and Type 1 diabetes
- Paying proper attention to modifiable stroke risk factors can help reduce the impact of non-modifiable risk factors⁴
- The following actions should be taken to control your risk for stroke:⁵
 - See a physician for regular medical checkups to monitor risk factors such as hypertension, heart disease and high cholesterol levels
 - Maintain a healthy lifestyle – stop smoking, eat a healthy diet, exercise regularly – and reduce stress

Treatments for Preventing a Second Stroke

- The most common treatments used to prevent secondary strokes are antithrombotic medications, which prevent the formation of blood clots in stroke patients
- Antithrombotics are divided into two categories: anticoagulants and antiplatelet agents.
 - Anticoagulants reduce the clotting property of the blood and have been shown to prevent cardioembolic TIAs and strokes (i.e., strokes caused by a clot originating in the heart, usually caused by an underlying cardiac disease)
 - Antiplatelets reduce platelet activity to prevent the formation of clots associated with ischemic strokes; they are recommended for non-cardioembolic (or thrombotic) stroke⁶
 - Non-cardioembolic strokes are most commonly ischemic stroke and a daily regimen of antiplatelet medications is recommended for secondary stroke prevention

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References

1. American Stroke Association. What is Stroke? American Heart Association, 2005. Found at: <http://www.strokeassociation.org/presenter.jhtml?identifier=3030066>
2. American Stroke Association. What are the types of Stroke?; American Heart Association, 2005. Found at: <http://www.strokeassociation.org/presenter.jhtml?identifier=1014>
3. American Heart Association. Heart Disease and Stroke Statistics: 2008 Update. Found at: <http://www.circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.107.187998v1>
4. American Stroke Association. Stroke Risk Factors. American Heart Association, 2005. Found at: <http://www.strokeassociation.org/presenter.jhtml?identifier=4716>
5. National Stroke Association. Reducing Risk and Recognizing Symptoms Fact Sheet. Found at: <http://www.stroke.org/site/DocServer/ReducingRiskfactsheet1.doc?docID=403>
6. Sacco, R. et al. Guidelines for prevention of stroke in patients with ischemic stroke or transient ischemic attack: a statement for healthcare professionals from the American Heart Association/American Stroke Association Council on Stroke: co-sponsored by the Council on Cardiovascular Radiology and Intervention: the American Academy of Neurology affirms the value of this guideline. Stroke: Journal of the American Heart Association. January 2006
7. National Stroke Association Guidelines for the Management of TIA. National Stroke Association. 2006. Found at: http://www.stroke.org/site/DocServer/TIA_Guidelines_070506_sm.pdf?docID=2361
8. National Institute of Neurological Disorders and Stroke. Brain Basics: Preventing a Stroke. What is a Stroke? Found at: http://www.ninds.nih.gov/disorders/stroke/preventing_stroke.htm
9. American Heart Association/American Stroke Association Heart Disease and Stroke Statistics – 2008 update, p. 15. Found at: http://www.americanheart.org/downloadable/heart/1200082005246HS_Stats%202008.final.pdf