

Updated guidelines include new research, advances in stroke prevention

December 2 2010

Healthy lifestyle choices and emergency room interventions can help prevent first-time strokes, according to revised American Heart Association/American Stroke Association guidelines.

The guidelines, last updated in 2006, will be published in *Stroke: Journal of the American Heart Association*.

"Between 1999 and 2006, there's been over a 30 percent reduction in stroke death rates in the United States and we think the majority of the reduction is coming from better prevention," said Larry B. Goldstein, M.D., chairman of the statement writing committee and director of the Duke Stroke Center in Durham, N.C.

Prior to this, the incidence of stroke may have been increasing, according to the statement that cites a 39 percent rise in hospitalizations between 1988 and 1997. As the population continues to age, the total number of Americans having a stroke is expected to rise.

More than 77 percent of the 795,000 strokes occurring in Americans each year are first events. The third leading cause of death in the United States after heart disease and cancer, stroke is a significant economic and social burden and one of the major causes of disability in adults.

For the first time, the prevention guidelines address stroke as a broad continuum of related events, including ischemic stroke, non-ischemic stroke and [transient ischemic attack](#) (TIA). For prevention, there is often

little difference along the stroke spectrum, said Goldstein, who is also a professor of medicine and director of Duke's ASA-Bugher Foundation Center for Stroke Prevention Research.

Accounting for 87 percent of all strokes, ischemic stroke happens when a blood vessel in or leading to the brain is blocked. TIA occurs when the blockage is temporary, but is considered a major risk factor for a later, larger stroke. A blood vessel rupture causes non-ischemic, or bleeding stroke, known as a [hemorrhagic stroke](#).

The new guidelines feature several key prevention updates based on recent research:

- Those who make [healthy lifestyle](#) choices — such as not smoking, eating a low-fat diet high in fruits and vegetables, drinking in moderation, exercising regularly and maintaining a normal body weight — lower risk of a first stroke as much as 80 percent compared with those who don't make such changes. The preventive benefit increases with each positive change adopted.
- Emergency room doctors should try to identify patients at high risk for stroke and consider making referrals, conducting screenings or beginning preventive therapy.
- Although genetic screening for stroke among the general population isn't recommended, it may be appropriate in certain circumstances, depending on family history and other factors.
- The usefulness of stenting in persons who have a narrowing of a carotid artery in the neck as compared to an operation (endarterectomy) is still uncertain. Because of advances in standard medical therapies (including a change in lifestyle

factors, treating high blood pressure and using antiplatelet and cholesterol lowering drugs) the usefulness of either procedure in persons who have not had symptoms is unclear. Doctors must decide whether to perform either procedure on a case-by-case basis.

- General population screening for carotid artery narrowing isn't recommended.
- Aspirin doesn't prevent a first stroke in low-risk persons or those with diabetes or asymptomatic peripheral artery disease. However, it's recommended for those whose risk is high enough for the reduction in [stroke](#) risk to outweigh the bleeding risks of aspirin.

Provided by American Heart Association

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