

# Guidance on preventing second stroke in those with plaque in brain arteries

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The use of medications and exercise is more beneficial in preventing a second stroke in people with intracranial atherosclerosis than placing a stent in the blood vessel, according to a new practice advisory issued by the American Academy of Neurology (AAN). The practice advisory is published in the March 21, 2022, online issue of *Neurology*, the medical

journal of the AAN, and is endorsed by the American Heart Association/American Stroke Association, Neurocritical Care Society and Society of Vascular and Interventional Neurology.

Intracranial atherosclerosis is a buildup of cholesterol plaque in the arteries in the brain. This buildup can occur over time causing a narrowing of the [blood vessels](#). It is associated with [high blood pressure](#), high cholesterol, diabetes and smoking.

The practice advisory looked at all available research on preventing a second stroke or death for people who had a first stroke due to intracranial atherosclerosis. It is one of the most common causes of stroke worldwide and is associated with a high risk of having another stroke.

"People who have had this type of stroke should first be started on medications to prevent [blood clots](#), reduce blood pressure and cholesterol and safely start increasing their physical activity as recommended by their doctors to decrease the risk of another stroke," said practice advisory author Tanya Turan, MD, MSCR, of the Medical University of South Carolina in Charleston and a Fellow of the American Academy of Neurology. "Having a stent placed in the blood vessel of the brain should not be the first option of care for most people."

Turan said that medical management through medication and exercise and placing a stent have been the two approaches developed for preventing a second stroke for people with narrowing of the brain arteries. A stent is a device used to open the narrowing of the blood vessel.

"Reviewing all of the evidence that has accumulated over the last two decades, we found that the research shows that [medical management](#) is

more beneficial for people as an initial treatment," she said.

The practice advisory recommends the use of aspirin for long-term prevention of second stroke and death. If the narrowing of the arteries is severe, the drug clopidogrel can be used in addition to aspirin for up to 90 days. The practice advisory recommends: the use of statins to achieve the goal of low-density lipoprotein cholesterol of less than 70 mg/dL; a long-term [blood pressure](#) target of less than 140/90 mm Hg; and at least moderate [physical activity](#) for people who can safely exercise.

**More information:** Tanya N. Turan et al, Stroke Prevention in Symptomatic Large Artery Intracranial Atherosclerosis Practice Advisory: Report of the AAN Guideline Subcommittee, *Neurology* (2022), [DOI: 10.1212/WNL.0000000000200030](https://doi.org/10.1212/WNL.0000000000200030)

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