

# Stroke

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## Ask Your Patients...

"Are you aware of the warning signs of a stroke?"

## If Your Patient Asks...

"Am I at risk for having a stroke?"

### UNDERSTAND the problem

Approximately 13.8% of men and 14.9% of women have a stroke by 85 years of age, and stroke is the cause of death for more than 142,000 Americans per year.<sup>1,2</sup> Stroke is also the leading cause of long-term disability in adults.<sup>1,3</sup>

Research has documented gaps between healthcare professionals' knowledge and practice with respect to prevention.<sup>4</sup> While public knowledge of the warning signs and risks of stroke has improved, the majority of the general public is still unaware that early treatment can prevent severe disability and death.<sup>5</sup> Yet, early identification and management of the risk factors for ischemic stroke can lead to substantial improvement in health and reductions in cost.<sup>6</sup>

### WHAT warning signs to recognize

The International Stroke Trial found that only 4% of patients with acute stroke arrive at the emergency department (ED) within 3 hours after the onset of symptoms, and a separate study found that 21% to 25% of individuals with acute stroke arrive at an ED within the same timeframe.<sup>10,11</sup> To improve the rate of early treatment, all patients should be counseled regarding methods of recognizing a stroke or cerebrovascular accident. Either the "five sudden warning signs" or FAST, a mnemonic device created by study investigators on the basis of the Cincinnati Prehospital Stroke Scale, may be used when providing information to patients.<sup>12,13</sup> Early signs and symptoms that comprise the five sudden warning signs include sudden onset of:<sup>13</sup>

- Numbness of the face, arm, or leg (especially on one side)
- Trouble seeing from one or both eyes
- Severe headache
- Dizziness, difficulties with walking, and loss of balance and coordination
- Confusion and trouble speaking or understanding

### WHO is at highest risk

#### Age

Prolonged damage of the aging cardiovascular system by various risk factors for stroke doubles the risk of ischemic stroke for each decade of life after 55 years of age.<sup>7</sup> As many as 75% of strokes occur in individuals older than 65 years of age, and the average age at the time of ischemic stroke is 71 years in men and 75 years in women.<sup>1</sup>

#### Gender

Studies suggest that, compared to men, women are evaluated less frequently following a stroke and any evaluation is more likely to be delayed.<sup>8</sup> This pattern results from women's presentation with nontraditional symptoms or without traditional symptoms and inappropriate worry by both clinician and patient about treatment-related risks.<sup>8,9</sup>

#### Ethnicity

The prevalence of stroke is highest for the American Indian/Alaskan Native population and lowest for Hispanics (of any race).<sup>1</sup> The risk of death from stroke among black individuals is 1.5 times that among white individuals in the United States.<sup>1</sup>

#### Lifestyle

Four lifestyle factors are significant contributors to stroke: smoking, diet and nutrition, physical inactivity, and obesity and body fat distribution. Modifiable risk factors are important as they highlight the substantial role the patient has in helping to manage risk. These factors are the cornerstones of stroke prevention.

FAST has been designed to focus on fewer common signs of stroke onset (face numbness, arm numbness, and slurred speech) and to include an action component (time) for lay persons who may have trouble recalling the warning signs and the appropriate action.<sup>8</sup>

## HOW stroke can be prevented

To decrease the incidence of first-time stroke in the United States, primary prevention should focus on individuals at high risk with modifiable risk factors. The American Heart Association recommends addressing lifestyle risk factors, as discussed, and medically managing several risk factors, including hypertension, diabetes, atrial fibrillation, other cardiac conditions, dyslipidemia, and asymptomatic carotid stenosis.<sup>7</sup>

The findings of a large study have shown that depressive symptoms are also an independent risk factor for stroke, especially for patients younger than 65 years of age.<sup>14</sup> Clinicians may consider managing depressive symptoms and mood disorders as aggressively as hypertension or diabetes, because mood disorders appear to increase risk for all types of stroke.<sup>15</sup>

## WHERE to find resources

### American Heart Association

1-800-AHA-USA-1 (242-8721)

<https://www.heart.org>

### American Stroke Association

1-888-4STROKE (478-7653)

<http://www.strokeassociation.org>

### Brain Aneurysm Foundation

1-888-BRAIN02 (272-4602)

<https://www.bafound.org>

### Brain Attack Coalition

301-496-5751

<https://www.brainattackcoalition.org>

### Centers for Disease Control and Prevention

<https://www.cdc.gov/stroke>

### BrightFocus Foundation

<https://www.brightfocus.org>

### National Stroke Association

1-800-STROKES (787-6537)

<http://www.stroke.org>

### Hazel K. Goddess Fund for Stroke Research in Women

<http://www.thegoddessfund.org>

### National Aphasia Association

<https://www.aphasia.org>

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