

## UNDERSTANDING THE ARRIVE, SURVIVE, AND THRIVE LANGUAGE OF STROKES AND STROKE SYMPTOMS

This fact sheet is designed to provide clear and straightforward explanations to help you survive and thrive in the complex world of stroke care. Whether you're a patient, caregiver, or health care professional new to treating stroke, this glossary aims to demystify the language surrounding effective and early stroke intervention and treatment options for survival and recovery.

### Stroke

A stroke can occur when blood flow to the brain is blocked, or there is sudden bleeding in the brain. There are two types of stroke: ischemic and hemorrhagic.

- ***Ischemic Stroke (Infarction)***: A stroke that occurs because blood flow to the brain is blocked. When this happens, the brain cannot get oxygen and nutrients from the blood. Without these two things, brain cells begin to die. Ischemic stroke is the most common form of stroke (87%).
- ***Hemorrhagic Stroke***: A stroke that occurs due to sudden bleeding in the brain, when a weakened vessel ruptures. The blood accumulates and compresses surrounding brain tissue. Hemorrhagic stroke makes up about 13% of stroke cases.

### Emergent Large Vessel Occlusion (ELVO or LVO)

An ELVO/LVO is a type of ischemic stroke that occurs when a major artery in the brain is blocked. This is considered a severe stroke. It is the deadliest type and is responsible for the greatest proportion of patients with long-term disability.

### Thrombolysis

A procedure to break up abnormal blood clots that restrict blood flow in the veins and arteries. There are two types of thrombolysis:

- ***Chemical Thrombolysis***: A medication is injected, such as tissue plasminogen activator (tPA) Tenecteplase (TNK), or urokinase, through a catheter to dissolve the clot.
- ***Mechanical Thrombolysis (Thrombectomy)***: An endovascular technique for removing blood clots from the brain after ischemic stroke

### Thrombectomy (Mechanical Thrombectomy)

A minimally invasive procedure that re-establishes blood flow to the brain quickly. Thrombectomy is highly effective at treating ischemic stroke patients who have a severe stroke known as an emergent large vessel occlusion (ELVO) — a clot that is blocking a large vessel and cutting off significant blood flow to the brain.

### tpa, TNK and other clot busting drugs

These are strong clot busting medications, given intravenously, that can dissolve blood clots and help restore blood flow to the brain. For ELVO strokes, these medications can be given in conjunction with thrombectomy.

### Neuroendovascular Surgery

An innovative, minimally invasive surgical treatment for complex brain and spinal cord vascular diseases that is performed from inside the blood vessels.

### Vascular

Relating to or affecting a vessel or vessels, which carry blood.

### Neurointerventionalists

Doctors who specialize in treating vascular diseases of the brain, neck, and spine, such as stroke and aneurysms, using minimally invasive approaches.

### Neuroendovascular Care Team

Specially trained individuals who can perform thrombectomy, which uses catheters to remove blood clots quickly from a blocked artery.

### Stroke Policies and Regulations

Policies and regulations that guide stroke treatment vary widely by state. Currently, most states do not have clear protocols to ensure a person who is having a severe stroke goes directly to a Level 1 stroke center, where they would have access to a specially trained neuroendovascular care team that can help them 24/7/365.

### Stroke Center Designations

*Level 1, 2, and 3 designations*, which were developed by [13 international medical societies](#) based on expert opinions and the most current evidence from stroke care around the world, describe the minimum organization and workload that a hospital should have to practice acute ischemic stroke interventions. The designations also provide recommendations for patient transport between hospitals. These guidelines, however, are not intended to serve as a substitute for existing national and regional guidelines.

### Level 1 Stroke Center (Comprehensive Stroke Center)

Hospitals that offer a full spectrum of neuroendovascular care. Requirements include: must perform a minimum of 50 mechanical thrombectomies (clot removals) per year, offers a dedicated neuro-intensive care unit, offers a dedicated stroke unit, and offers neurosurgical services on-site.



While a stroke patient might live near a facility that is a Level 1 stroke center, they may be brought to one that is simply closer but not equipped to treat them. The time lost in transfer from the nearest hospital to the best-equipped Level 1 facility that can help them jeopardizes a patient's chance of recovery.

### Prehospital Triage

Paramedics consider a patient's condition according to illness, injury, and disease, and decide on transport them to an appropriate hospital according to severity.

### Trauma Model

Patients are assessed by EMS according to standardized criteria and taken to a trauma center based on their level of injury, not the closest hospital. That has not always been the case for stroke patients, which is why the Get Ahead of Stroke® campaign began.

Unlike trauma, most states do not have requirements for first responders to take severe stroke patients to a facility specially equipped to treat them.

### Get Ahead of Stroke® (GAOS)

Get Ahead of Stroke® is a national public education and advocacy campaign designed to improve systems of care for stroke patients. Today the campaign is supported by a coalition of organizations with the goal of securing the best possible outcomes for stroke patients by driving policy change and public awareness nationwide. It was founded in 2016 by the Society of NeuroInterventional Surgery (SNIS).