

How a Stroke Occurs

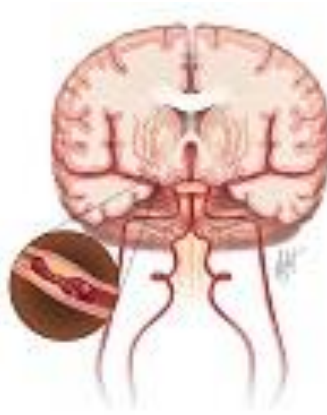
Strokes are described by:

- How the stroke occurs in the brain
- The area of the brain where it occurs

Symptoms depend on the area(s) of the brain affected by the stroke.

HOW THE STROKE OCCURS — ISCHEMIC VS. HEMORRHAGIC

Ischemic stroke is a blockage of an artery in the brain that prevents blood from carrying oxygen to brain cells.



- Leads to brain cell death in that region
- Loss of brain cells = loss of function

Blockages can occur by:

- Something floating through the artery and becoming lodged
- Thickening of an artery wall

Blockages at the start of an artery cause more damage than a blockage further along in an artery, deeper in the brain.

- For example—if a river is blocked by a big boulder at the start of the river, more land will be deprived of water (in the brain, this would mean more function loss).

- Instead, if a blockage occurs in one of the tributaries further down the river, a smaller portion of land will be deprived of water (typically, less function loss).

Hemorrhagic stroke is when a blood vessel breaks, leaking blood into spaces of the brain where blood shouldn't be.



- Potentially more dangerous type of stroke—uncontrolled bleeding in the brain causes increased pressure in the skull.
- Can quickly be life-threatening—sometimes requires surgery to decrease the pressure in the skull and on the brain.

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Stroke Volunteers Needed for Research

Have you had a stroke within the past year?

Do you have weakness on one side because of the stroke?

If yes, you may qualify for a research study to test the possible benefits of brain stimulation on hand and arm function. Participants will receive hand and arm therapy with an occupational therapist, as well as real or placebo (sham) stimulation treatments called "Transcranial Magnetic Stimulation." The therapy and treatments are free of charge.

To qualify, you must:

- Be 18 years of age or older
- Have hand and arm weakness on one side because of a stroke
- The stroke must be because of a blockage (ischemic) or a bleed (hemorrhagic)
- The stroke must have taken place within 3 to 12 months prior to starting the study

Contact the research coordinator today for more information. Call or email Carlyn R. Kappy, RD, LD, CCRP at (404)367-1375 or carlyn_kappy@shepherd.org.