

## Helpful Terms to Know

**Artery** – blood vessels that carries blood away from the heart to the rest of the body

**Catheter** – thin tube

**Embolic stroke** – caused by a ‘wandering blood clot’ (embolus) that formed elsewhere in the blood stream and traveled to an artery of the brain

**Plaque** – substances found in blood that, in excess, can narrow or clog arteries (forms a clot)

**Stent** – a tubular device used to prop open a narrowed blood vessel

**Stentriever** – temporary stent used to capture and remove a clot

**Thrombotic stroke** – caused by a blood clot (thrombus) formed within an artery of the brain

**tPA** – Tissue Plasminogen Activator, a medication that dissolves blood clots given intravenously (IV)

Visit [StrokeAssociation.org](http://StrokeAssociation.org) for fact sheets and information about how to manage your risk for stroke.

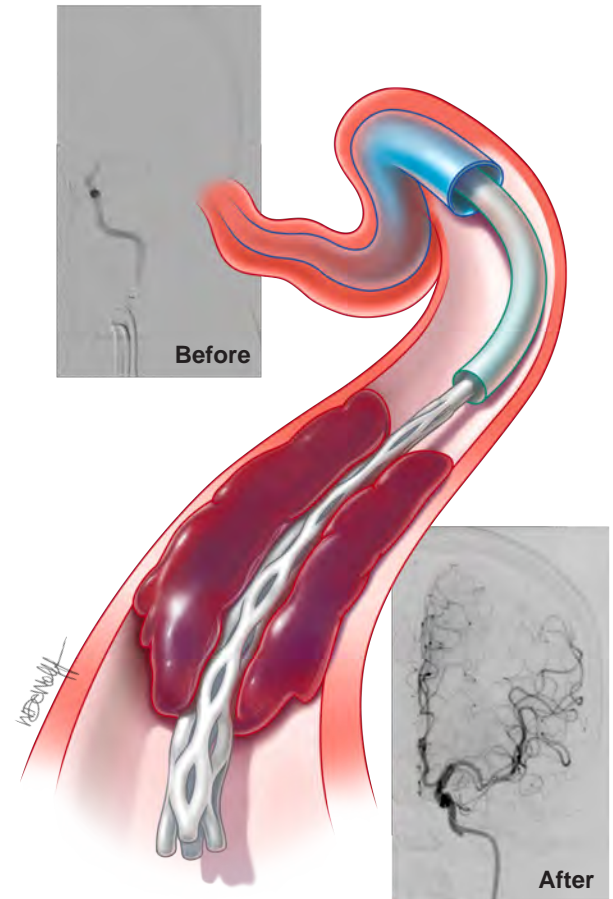
Illustrated and designed by Weston DeWolff at Augusta University.



American Heart Association  
American Stroke Association  
**CERTIFICATION**  
Meets standards for  
Comprehensive Stroke Center



# Mechanical Thrombectomy Procedure



## Why a Mechanical Thrombectomy?

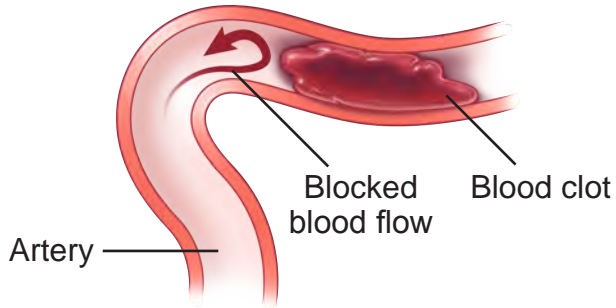
Soon after arriving to the hospital, the drug tPA is administered into the blood stream in an attempt to break up the clot. If the clot is too large and tPA does not properly dissolve the clot, doctors may perform a mechanical thrombectomy procedure. By physically removing the clot, the surgeon can restore proper blood flow to the brain.

## Advanced Acute Stroke Treatment



## What Causes Ischemic Stroke

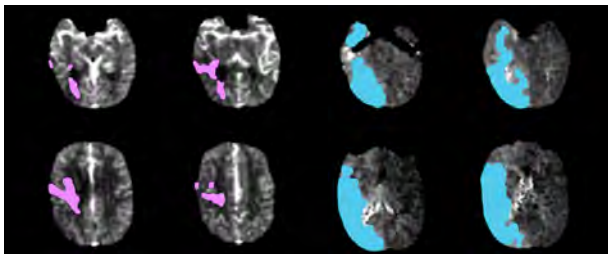
An ischemic stroke occurs when there is a lack of blood reaching part of the brain. This usually happens when there is a narrowing or blockage of an artery.



When a blood clot becomes stuck inside an artery, blood flow is reduced or blocked completely.

## Time Means Brain

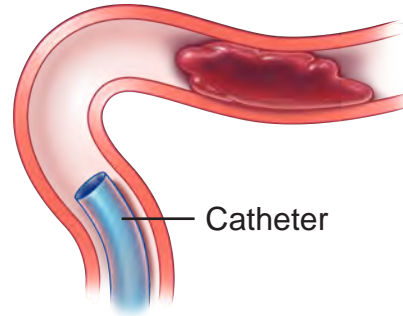
In the event of an ischemic stroke, *time means brain*. The longer the clot blocks blood flow to the brain, the more damage it does. The goal of acute stroke treatment is to reduce damage to the brain by removing the clot and restoring proper blood flow as quickly as possible.



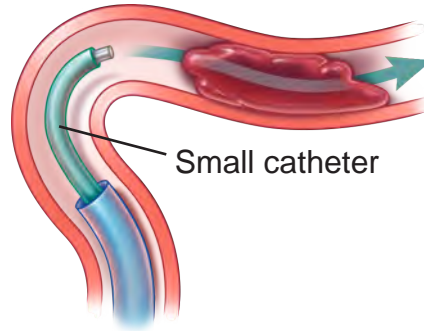
Above shows various brain scans of a stroke patient. Purple represents brain tissue permanently damaged by the stroke. Blue represents area of brain tissue at risk if the blood clot is not removed.

## How It Works

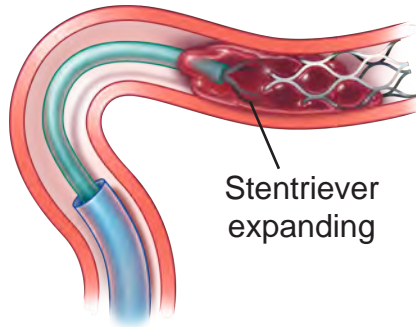
1. A catheter is inserted near the groin and fed through arteries to the site of the blockage. This creates the tunnel through which the surgeon operates.



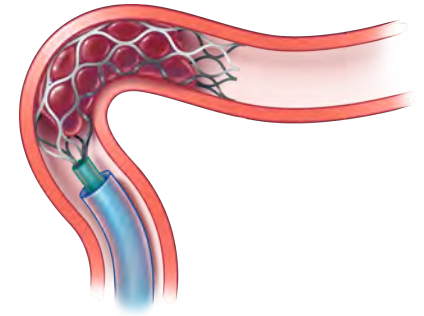
2. With the help of a guidewire, a small catheter containing a stentriever is pushed through the clot.



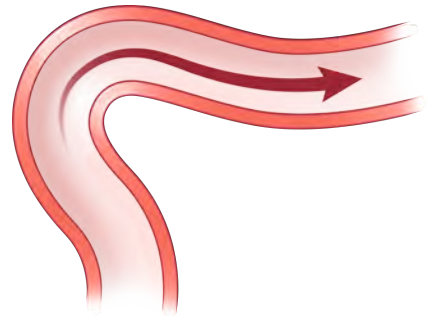
3. The small catheter is retracted so the stentriever can expand and grip the clot.



4. The clot, now caught within the expanded stentriever, is pulled backwards through the large catheter and out of the body.



5. With the clot removed, normal blood flow is restored to the brain.



## X-ray images of arteries

