Stroke’s critical timeline

Most strokes (80% or more) are ischemic.

- **Ischemic**: Clot blocks blood flow
- **Hemorrhagic**: A brain artery ruptures

Brain cells need constant nourishment to survive; it’s delivered by blood via the arteries. When blood flow is disrupted, myriad cells begin dying, short-circuiting vital functions. Soon, the person may no longer be able to see, speak or function in familiar ways.

Stroke teams seek to compress the time until treatment begins. Parallel processing — in which team members work simultaneously to perform a variety of tasks — facilitates this race against the clock. Innovative approaches to practical problems help deliver treatment in 30 minutes or less in some cases.

Seconds count—from the moment of stroke onset, to the arrival of emergency personnel, through transport to a hospital. Expertise, equipment and enhanced protocols make a certified stroke center the destination of choice, even at a further distance. However, when patients cannot make the journey, Washington University stroke physicians partner with community hospitals in critical care decisions, using telemedicine (see page 23).

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