

## The importance of getting tPA quickly

In order for tPA therapy to be most effective, it must be given within a few hours of when [stroke symptoms](#) first appeared. The sooner you receive it, the greater the benefit. The usual cutoff for tPA treatment is 3 hours, although some studies have shown benefits when it is used up to 6 hours after a stroke occurred.

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Only about 2% of stroke patients in the US receive tPA.

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The main reason that eligible patients don't receive this treatment is because they don't arrive at a hospital quickly enough to be tested and treated within the 3-hour window.

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Before administering tPA, doctors must first perform a quick brain-imaging test, usually a [computed tomography \(CT\) scan](#)

and sometimes a

[magnetic resonance imaging \(MRI\) scan](#)

, to make sure that the stroke is due to a blocked vessel and not due to bleeding. Patients suffering from bleeding (hemorrhagic) stroke are not eligible for treatment with tPA. This testing takes time, so it is important that you get to the hospital as quickly as possible to be sure you are diagnosed and tested in time to get the first-choice treatment. In one study of nearly 18,000 patients who had a stroke (53% were women), less than half arrived at the emergency room within 2 hours of experiencing symptoms. Women and men were equally likely to arrive within 2 hours of symptoms. About 65% of those had a brain-imaging test done within an hour of arriving at the hospital. Women were slightly less likely than men to receive brain imaging within an hour of arrival (63% of women compared with 68% of men).

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The sooner you receive treatment, the better your chances of surviving a stroke without significant disability.<sup>13</sup> In one study that pooled results from six trials of tPA treatment in 2775 patients, those who received tPA within 90 minutes were nearly 3 times as likely to have a good outcome as those who did not receive tPA, and those who were treated within 3 hours were 1.6 times as likely to have a good outcome.

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## How is tPA given?

tPA is usually injected directly into a vein in your arm (through an IV). From there it travels through your bloodstream to where the blockage is.

Although through an IV is the only FDA-approved way to give tPA, stroke specialists have been experimenting with using a long, thin tube called a catheter (like the one used in [angiography](#)) to inject the drug directly into an artery near the blood clot. This allows the tPA to reach the clot faster and requires less of the drug to be used, potentially lowering the risk of bleeding in the brain. Delivering tPA directly to the clot may also make the treatment effective for a longer period—up to 6 hours after symptoms first appear. For now, this method is only used in high-end specialized stroke centers. Clinical trials are in progress to see if this way of delivering clot-busters should be used more often.

[Click here](#)

to search for accredited primary stroke centers in your state.

[Next: tPA Quick Reference Table](#)

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