

Mechanical thrombectomy

Mechanical [thrombectomy](#), or simply [thrombectomy](#), is the interventional [procedure](#) of removing a [blood clot \(thrombus\)](#) from a [blood vessel](#). It is commonly performed in the cerebral arteries ([interventional neuroradiology](#)).

Similar to arterial embolic stroke, devices such as [Stentriever](#) or [Penumbra](#) may be used for clot extraction. Additionally, devices intended for other sites e.g., clot extraction from dialysis fistula, have also been used in cranial sinuses ¹⁾.

The challenge during endovascular intervention is negotiating the sigmoid-transverse sinus junction especially when using bulkier catheters e.g., AngioJet.

Indications

see [Mechanical thrombectomy for acute ischemic stroke](#).

see [Mechanical thrombectomy for large vessel occlusion](#).

Guidelines

[Endovascular recanalization therapy](#) (ERT) has been a [standard of care](#) for [patients](#) with [acute ischemic stroke](#) due to [large vessel occlusion](#) (LVO) within 6 hours after onset, since five [landmark ERT trials](#) conducted by 2015 demonstrated its clinical benefit. Two [randomized clinical trials](#) demonstrated that ERT, even in the late time window of up to 16 hours or 24 hours after last known normal time, improved the [outcome](#) of patients who had a target mismatch, defined as either clinical-core mismatch or perfusion-core mismatch, which prompted the update of national guidelines in several countries. Accordingly, to provide [evidence](#)-based and up-to-date [recommendations](#) for ERT in patients with acute LVO in [Korea](#), the Clinical Practice Guidelines Committee of the Korean Stroke Society decided to revise the previous Korean Clinical Practice Guidelines of Stroke for ERT. For this [update](#), the [members](#) of the writing group were appointed by the Korean Stroke Society and the Korean Society of Interventional Neuroradiology. After thoroughly reviewing the updated evidence from two recent trials and relevant literature, the writing members revised [recommendations](#), for which formal [consensus](#) was achieved by convening an [expert panel](#) composed of 45 experts from the participating academic societies. The current guidelines are intended to help [healthcare providers](#), patients, and their [caregivers](#) make well-informed [decisions](#) and to improve the [quality of care](#) regarding ERT. The ultimate decision for ERT in a particular patient must be made in light of circumstances specific to that patient ²⁾.

Anesthesia

[Mechanical thrombectomy anesthesia](#).

Complications

[Mechanical thrombectomy complications.](#)

Scores

[Modified treatment in cerebral ischemia score](#)

Outcome

[Mechanical thrombectomy outcome.](#)

Videos

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<html><iframe width="560" height="315" src="https://www.youtube.com/embed/Cr9Pb3liSIA"
frameborder="0" allow="accelerometer; autoplay; encrypted-media; gyroscope; picture-in-picture"
allowfullscreen></iframe></html>
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Left pterional craniotomy for thrombectomy and clipping of ruptured left MCA giant aneurysm

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<html><iframe width="420" height="315" src="https://www.youtube.com/embed/8dimNdiIObE"
frameborder="0" allowfullscreen></iframe></html>
```

Case series

[Mechanical thrombectomy case series](#)

Case reports

[Mechanical thrombectomy case reports.](#)

¹⁾

Khan SH, Adeoye O, Abruzzo TA, Shutter LA, Ringer AJ. Intracranial dural sinus thrombosis: novel use of a mechanical thrombectomy catheter and review of management strategies. Clin Med Res. 2009; 7:157- 165

²⁾

Ko SB, Park HK, Kim BM, Heo JH, Rha JH, Kwon SU, Kim JS, Lee BC, Suh SH, Jung C, Jeong HW, Kang DH, Bae HJ, Yoon BW, Hong KS. 2019 Update of the Korean Clinical Practice Guidelines of Stroke for Endovascular Recanalization Therapy in Patients with Acute Ischemic Stroke. Neurointervention. 2019

Aug 23. doi: 10.5469/neuroint.2019.00164. [Epub ahead of print] PubMed PMID: 31437873.

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