

Woven EndoBridge Indications

The [Woven EndoBridge \(WEB\) device](#) is increasingly used for treatment of [wide-neck bifurcation aneurysms](#)¹⁾.

While this device has had good results, there remains a subset that fail this treatment.

For the treatment of both ruptured and unruptured aneurysms. The WEB has received the CE mark and to date has been used to treat a wide variety of more than 1,400 aneurysms in Europe, Latin America and New Zealand. The WEB is not available for sale or use in the United States.

The WEB is a self-expanding, oblate, braided nitinol mesh.

The device is composed of an inner and outer braid held together by proximal, middle, and distal radiopaque markers, creating 2 compartments: 1 distal and 1 proximal. Depending on the device diameter, the inner and outer braids are 108 wires or 144 wires. Therefore, blood flow into a WEB-embolized aneurysm initially encounters 2 layers of wires comprising 216 or 288 wires, with the largest interwire distance ranging from 106 to 181 μm , respectively, depending on the device size. The WEB implant is deployed—or retrieved before detachment—in a manner similar to that in endovascular coil systems, through microcatheters with an internal diameter ≈ 0.027 inch. For devices with a diameter of ≈ 7 mm, microcatheters with an internal diameter of 0.027 inch are used; and for devices with a diameter ≈ 7 mm, microcatheters with an internal diameter 0.032 inch are used. The detachment system is electrothermal and instantaneous.²⁾

In a study, there was no difference in the early clinical course between those treated with WEB embolization, coil embolization, or neurosurgical clipping. Since WEB embolization is a valuable treatment alternative to coiling, it seems not justified to exclude this procedure from upcoming clinical SAH trials, yet the clinical long-term outcome, aneurysm occlusion, and retreatment rates have to be analyzed in further studies³⁾.

1)

Essibayi MA, Altschul DJ. The impact of delivery technique on Woven EndoBridge deployment and detachment in an in vitro aneurysm model. *Interv Neuroradiol*. 2024 Aug 22;15910199241273984. doi: 10.1177/15910199241273984. Epub ahead of print. PMID: 39169770.

2)

Pierot L, Liebig T, Sychra V, Kadziolka K, Dorn F, Strasilla C, Kabbasch C, Klisch J. Intracapsular flow-disruption treatment of intracranial aneurysms: preliminary results of a multicenter clinical study. *AJNR Am J Neuroradiol*. 2012 Aug;33(7):1232-8. doi: 10.3174/ajnr.A3191. Epub 2012 Jun 7. PubMed PMID: 22678844.

3)

Sauvigny T, Nawka MT, Schweingruber N, Mader MM, Regelsberger J, Schmidt NO, Westphal M, Czorlich P. Early clinical course after aneurysmal subarachnoid hemorrhage: comparison of patients treated with Woven EndoBridge, microsurgical clipping, or endovascular coiling. *Acta Neurochir (Wien)*. 2019 Jul 6. doi: 10.1007/s00701-019-03992-4. [Epub ahead of print] PubMed PMID: 31280480.

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