

Sustaining Hypogastric Flow – Preserving Pelvic Functionality

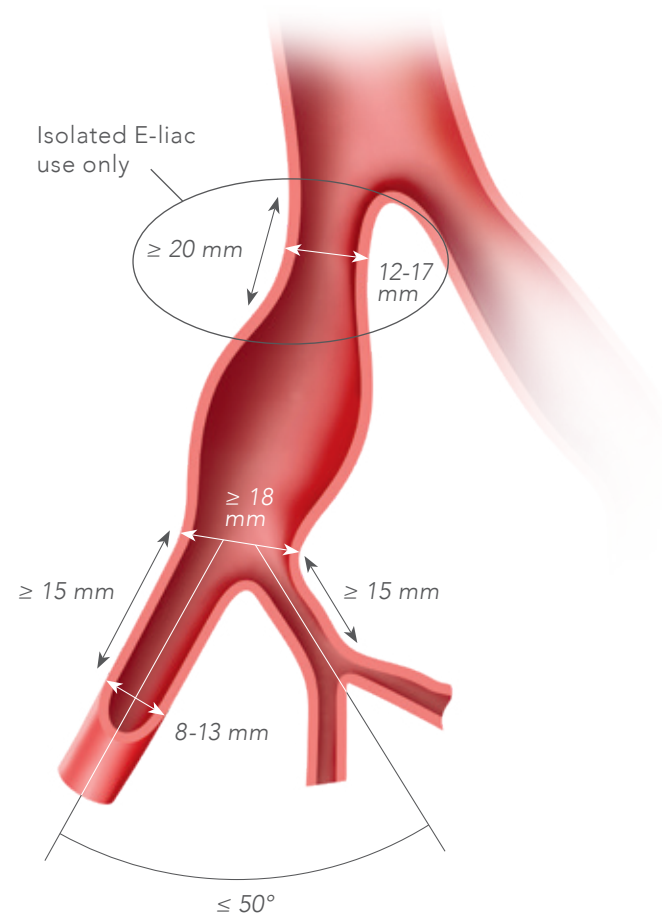


The importance of preserving the hypogastric artery

One of the major anatomical challenges of endovascular aortic repair in patients with AAA are concomitant iliac artery aneurysms. Iliac artery aneurysms are known to exacerbate the complexity of endovascular aneurysm repair and increase the incidence of type Ib endoleaks, iliac limb occlusions and aneurysm ruptures.

Furthermore, occlusion of the internal iliac artery can cause ischemic manifestations such as erectile dysfunction, buttock claudication and colonic ischemia.¹⁻³ Therefore, the European Society of Vascular Surgery recommends to avoid bilateral interruption of the internal iliac arteries, at least in standard risk patients.⁴

The E-liac Stent Graft System offers an endovascular solution for preserving the hypogastric artery and is indicated for the treatment of patients with unilateral or bilateral aorto-iliac or isolated iliac aneurysms provided the following preconditions are met:⁵



Non-aneurysmal common iliac artery landing area in case of iliac artery aneurysm ≥ 20 mm

Diameter of common iliac artery in the proximal landing area: 12 - 17 mm

Non-aneurysmal external iliac artery segment distal to the aneurysm ≥ 15 mm

Diameter of the external iliac artery in the distal landing area: 8 - 13 mm

Non-aneurysmal internal iliac artery segment distal to the aneurysm ≥ 15 mm

Angle between external iliac artery and internal iliac artery $\leq 50^\circ$

Thrombus free iliac lumen in the area of iliac bifurcation ≥ 18 mm

E-liac Stent Graft System

Clinical evidence

The E-liac Stent Graft System has been tested in multiple studies where its safety and efficacy to maintain pelvic blood flow has been proven.

Study	Brunkwall et al. ⁷	Anton et al. ⁶	Mylonas et al. ⁵
Year of publication	2019	2018	2016
Follow-up	12 months	12 months	12 months
Patients enrolled	42	21	70
Buttock claudication	2.4%	5.0%	0.0%
E-liac related reintervention rate	5%	8.7%	11%
Primary patency rates	EIA	98%	100%
	IA	98%	100%

Indicated for both - aorto-iliac and isolated iliac aneurysms

Low profile and sheathless application

Pre-cannulated side branch

Designed for a broad range of anatomies

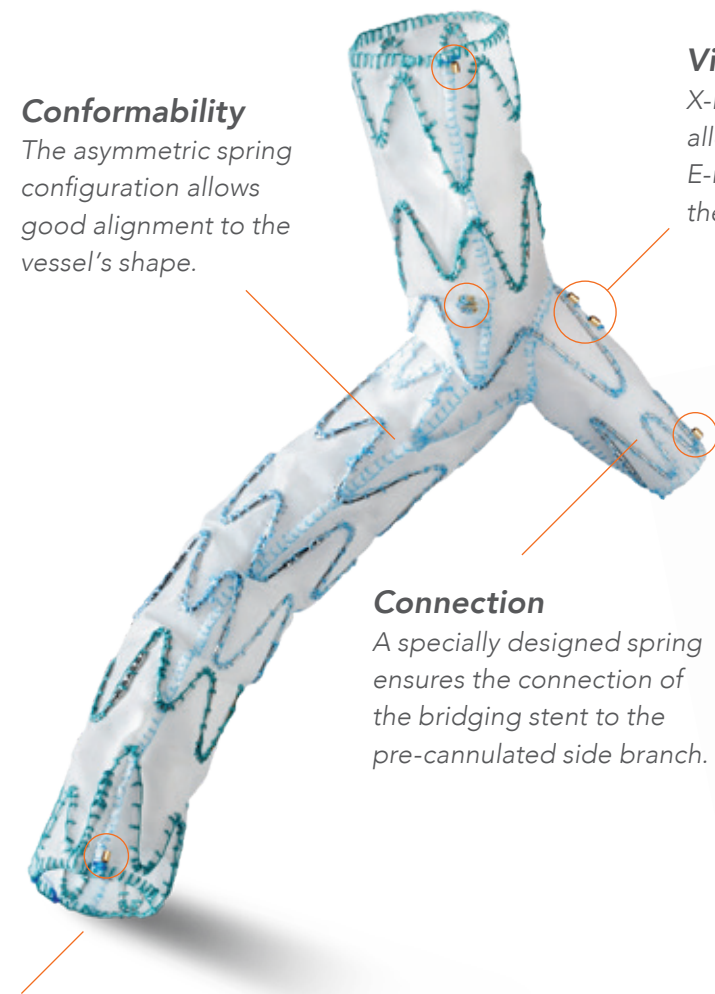
High patency rates and low reintervention rates^{5,6,7}

Clinical experience of more than 3,000 implantations



Covering a wide range of anatomies

The self-expanding stent graft is made of nitinol springs covered with woven polyester. Various lengths and diameters are available for an individual patient treatment.



Conformability

The asymmetric spring configuration allows good alignment to the vessel's shape.

Visibility

X-ray markers at various points allow safe positioning. The special E-marker indicates orientation of the side branch.

Connection

A specially designed spring ensures the connection of the bridging stent to the pre-cannulated side branch.

Individuality

Various proximal and distal diameters together with different lengths cover a wide range of anatomies for an individual treatment.

Safe handling and precise deployment

The unique and intuitive delivery system with its 6.25 mm profile allows a sheathless application and is designed to reach the target lesion even in sophisticated areas.



Functionality

The end cap of the delivery system contains various functions: guidance for the central and lateral guide wire as well as the release mechanism for the distal stent graft fixation.

Flexibility

The catheter is designed for safe and precise advancement even in tortuous anatomies.

Guidance

Axial and lateral lumen for guide wire introduction.

Smooth delivery

The hydrophilic coating eases introduction and advancement of the system.

Easy deployment

The Squeeze-to-Release mechanism allows gradual or continuous release with minimum effort.

Control

The control handle secures the position of the delivery system during the procedure.

Orientation

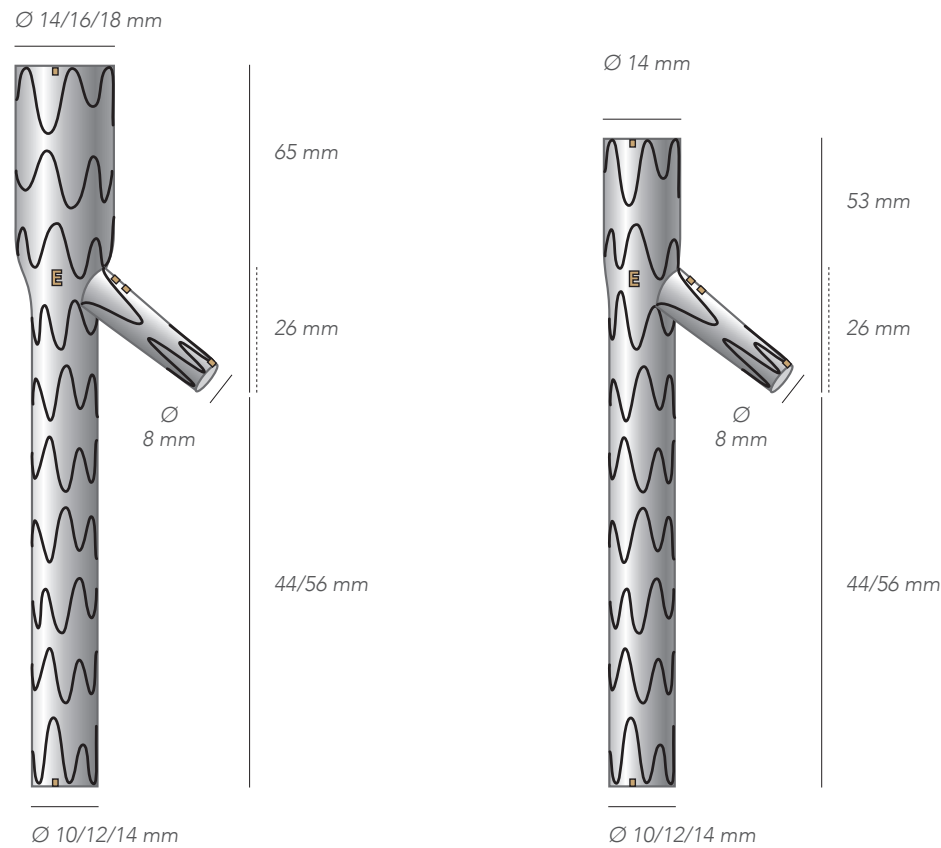
Tactile marking indicates orientation of the side branch and enables precise deployment of the stent graft.

Components at a glance

Configurations

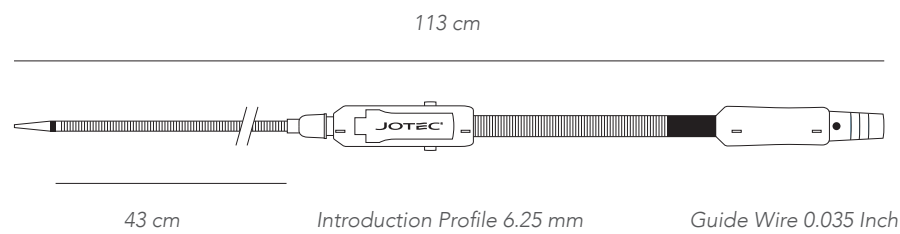
01 Isolated Iliac Aneurysms

02 Aorto-Iliac Aneurysms



Ø 10/12/14 mm

Ø 10/12/14 mm



43 cm

Introduction Profile 6.25 mm

Guide Wire 0.035 Inch

113 cm

Bench test data on file at JOTEC GmbH. Data not indicative of clinical performance.

Ordering Information

01 Isolated Iliac Aneurysms

Catalog No.	Ø Proximal (mm)	Ø Distal (mm)	Total length (mm)	Proximal length (mm)	Distal length (mm)	OD delivery system (F/mm)
72IB1410L65L44*	14	10	109	65	44	18/6.25
72IB1412L65L44*	14	12	109	65	44	18/6.25
72IB1414L65L44*	14	14	109	65	44	18/6.25
72IB1412L65L56*	14	12	121	65	56	18/6.25
72IB1414L65L56*	14	14	121	65	56	18/6.25
72IB1610L65L56	16	10	121	65	56	18/6.25
72IB1612L65L56	16	12	121	65	56	18/6.25
72IB1614L65L56	16	14	121	65	56	18/6.25
72IB1812L65L56	18	12	121	65	56	18/6.25
72IB1814L65L56	18	14	121	65	56	18/6.25

Non stock item

* also suitable for aorto-iliac aneurysms

02 Aorto-Iliac Aneurysms

Catalog No.	Ø Proximal (mm)	Ø Distal (mm)	Total length (mm)	Proximal length (mm)	Distal length (mm)	OD delivery system (F/mm)
72IB1410L53L44	14	10	97	53	44	18/6.25
72IB1412L53L44	14	12	97	53	44	18/6.25
72IB1414L53L44	14	14	97	53	44	18/6.25
72IB1410L53L56	14	10	109	53	56	18/6.25
72IB1412L53L56	14	12	109	53	56	18/6.25
72IB1414L53L56	14	14	109	53	56	18/6.25

Oversizing Guidelines

01 Isolated Iliac Aneurysms

Vessel diameter proximal landing zone (mm)	Proximal stent graft diameter (mm)	Side branch diameter (mm)
12-13	14	8
14-15	16	8
16-17	18	8

Vessel diameter distal landing zone (mm)	Distal stent graft diameter (mm)	Side branch diameter (mm)
8-9	10	8
10-11	12	8
12-13	14	8

02 Aorto-Iliac Aneurysms

Vessel diameter distal landing zone (mm)	Distal stent graft diameter (mm)	Side branch diameter (mm)
8-9	10	8
10-11	12	8
12-13	14	8

References

- 1 Buttock claudication and erectile dysfunction after internal iliac artery embolization in patients prior to endovascular aortic aneurysm repair. Rayt HS, Bown MJ, Lambert KV, Fishwick NG, McCarthy MJ, London NJ, et al. Cardiovasc Intervent Radiol. 2008;31: 728-34.
- 2 Hypogastric artery preservation during endovascular aortic aneurysm repair: is it important? Lin PH, Chen AY, Vij A. Semin Vasc Surg. 2009;22: 193-200.
- 3 Buttock claudication after interventional occlusion of the hypogastric artery: a mid-term follow-up. Pavlidis D, Hormann M, Libicher M, Gawenda M, Brunkwall J. Vasc Endovascular Surg. 2012;46: 236-41.
- 4 Instructions for use E-liac.
- 5 A multicenter 12-month experience with a new iliac side-branched device for revascularization of hypogastric arteries. Mylonas SN, Rümenapf G, Schelzig H, Heckenkamp J, Youssef M, Schäfer JP, Ahmad W, Brunkwall JS. E-liac Collaborative Group. J Vasc Surg. 2016 Dec;64(6): 1652-1659.e1.
- 6 Initial Experience with the E-liac Iliac Branch Device for the Endovascular Aortic Repair of Aorto-iliac Aneurysm. Anton S, Wiedner M, Stahlberg E, Jacob F, Barkhausen J, Goltz JP. Cardiovasc Intervent Radiol. 2018 May;41(5): 683-6919.
- 7 Prospective Study of the Iliac Branch Device E-liac in Patients with Common Iliac Artery Aneurysms: 12 Month Results. Brunkwall JS, Puerta CV, Heckenkamp J, Egaña Barrenechea JM, Szopinski P, Mertikian G, Seifert S, Rümenapf G, Buz S, Assadian A, Majd P, Mylonas S, Calavia AR, Theis T, de Blas Bravo M, Pleban E, Schupp J, Esche M, Kocacir C, Hirsch K, Oberhuber A, Schäfer JP. 2019 Oct 12, 10.1016/j.ejvs.2019.06.020.

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