



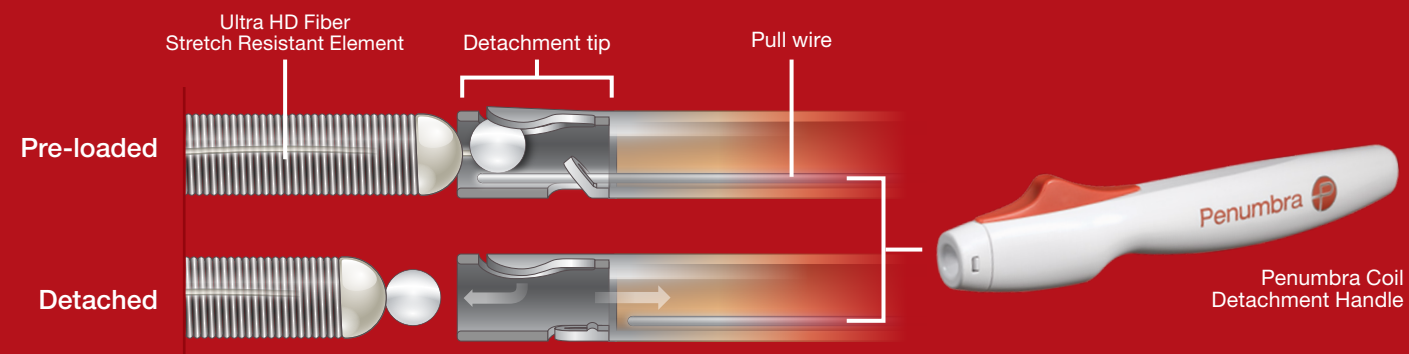
Big Coil Advantages



Penumbra Coil 400™

Big Coils, Big Advantages.

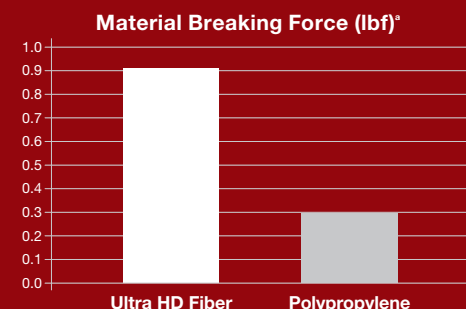
Designed for Reliable, Instant Detachment



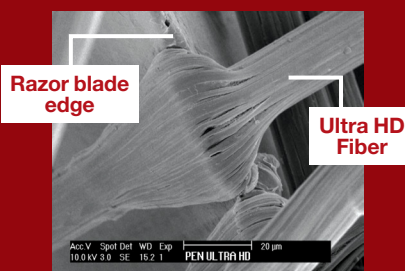
Ultra HD Fiber

The stretch-resistant element in PC400™ uses material that is **3x stronger and more flexible** than current stretch resistant materials

Photograph taken by and on file at Penumbra, Inc. Renderings for illustrative purposes only.
a. Tests performed and data on file at Penumbra, Inc. All testing was completed by the same operator during the same testing session.

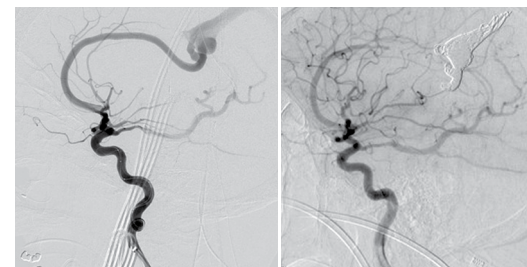


Scanning Electron Microscope Image



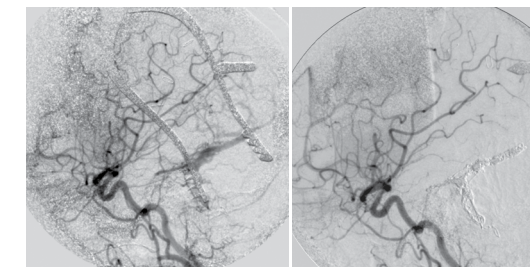
Cost Effective^{1,2,3} Less Radiation^{3,4} Dense Occlusion^{1,5,6,7,8,9,10} 25% Faster Procedure^{3,5}

Vein of Galen Embolization



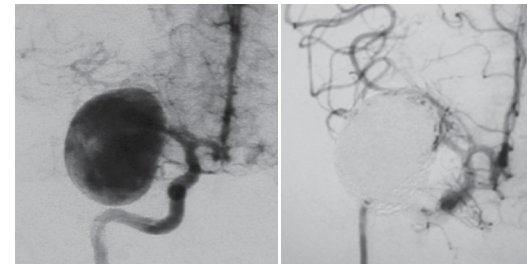
Dr. Adnan Siddiqui
University at Buffalo, NY

Transverse Sinus Embolization



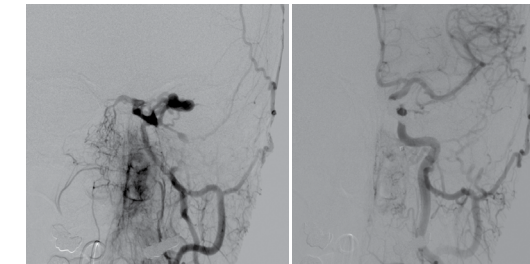
Dr. Philippe Gailloud
Johns Hopkins University Medical Center, MD

Large Middle Cerebral Artery Aneurysm



Dr. Nelson Lobelo
Hospital Infantil San José, Bogotá, Colombia

Indirect Cavernous Carotid Fistula





Dr. Donald Frei
Swedish Medical Center, CO



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- Alexander M, Chowdhary A, Baxter B, et al. Initial U.S. multi-center experience with Penumbra Coil 400™: A series of 30 cases. Intervent Neuroradiol. 2011;17(suppl 1):141-146.

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Frame	Fill	Fill / Finish	
COMPLEX STANDARD	COMPLEX SOFT	COMPLEX EXTRA SOFT	CURVE EXTRA SOFT
			

Catalog Number	Secondary Diameter (mm)	Length (cm)	Catalog Number	Secondary Diameter (mm)	Length (cm)	Catalog Number	Secondary Diameter (mm)	Length (cm)	Catalog Number	Secondary Diameter (mm)	Length (cm)
4002C0720	7	20	4004C0306	3	6	4006C0202	2	2	4006U0201		1
4002C0820		20	4004C0310		10	4006C0203	2	3	4006U0202	2	2
4002C0830	8	30	4004C0408	4	8	4006C0204		4	4006U0203		3
4002C0925		25	4004C0412		12	4006C0303		3	4006U0204		4
4002C0935	9	35	4004C0509	5	9	4006C0304		4	4006U0302		2
4002C1030		30	4004C0513		13	4006C0305	3	5	4006U0304		4
4002C1040	10	40	4004C0610	6	10	4006C0306		6	4006U0306	3	6
4002C1135		35	4004C0615		15	4006C0308		8	4006U0308		8
4002C1145	11	45	4004C0710	7	10	4006C0406		6	4006U0404		4
4002C1235		35	4004C0715		15	4006C0408	4	8	4006U0408	4	8
4002C1245	12	45	4004C0720	8	20	4006C0410		10	4006U0410		10
4002C1348		48	4004C0815		15						
4002C1450	14	50	4004C0820	9	25						
4002C1557		57	4004C0925		25						
4002C1660	16	60	4004C1030	10	30						
4002C1857		57	4004C1135		35						
4002C2060	20	60	4004C1235	12	35						
4002C2260		60	4004C1335		35						
4002C2457	24	57									
4002C2860	28	60									
4002C3260	32	60									

PX SLIM™ Delivery Microcatheter



Catalog Number	Tip Shape	Tip ID (in.)	Distal and Proximal OD	Guidewire Compatibility (in.)	Tip Markers	Length (cm)
PXSLIMSTR	Straight	.025	2.6/2.95 F	.020	2	150
PXSLIM045	45°	.025	2.6/2.95 F	.020	2	150
PXSLIM090	90°	.025	2.6/2.95 F	.020	2	150
PXSLIM130	130°	.025	2.6/2.95 F	.020	2	150

Penumbra Coil Detachment Handle



Catalog Number	Description
DH1	Detachment Handle

Penumbra Coil System — Indication for Use

- The Penumbra Coil System is indicated for the embolization of:
- Intracranial aneurysms.
 - Other neurovascular abnormalities such as arteriovenous malformations and arteriovenous fistulae.
 - Arterial and venous embolizations in the peripheral vasculature.

Contraindications

There are no known contraindications.

Warnings

The Penumbra Coil System should only be used by physicians who have received appropriate training in neuro-interventional techniques.

Precautions

- The device is intended for single use only. Do not resterilize or reuse. Resterilization and/or reuse may compromise the structural integrity of the device or increase the risk of contamination or infection leading to device failure and/or cross-infection and potential patient injury, illness, or death.
- Do not use kinked or damaged devices. Do not use opened or damaged packages. Return all damaged devices and packaging to the manufacturer/distributor.

- Use prior to the "Use By" date.
- Use device in conjunction with fluoroscopic guidance.
- Do not advance or retract the device against resistance without careful assessment of the cause using fluoroscopy.
- Moving or torquing the device against resistance may result in damage to the vessel or device.
- Maintain a constant infusion of an appropriate flush solution.

Potential Adverse Events

Possible complications include, but are not limited to, the following: acute occlusion; air embolism; allergic reaction and anaphylaxis from contrast media; aneurysm rupture; arteriovenous fistula; coagulopathy; coil herniation into parent vessel; death; device malfunction; distal embolization; emboli; embolic stroke and other cerebral ischemic events; false aneurysm formation; hematoma or hemorrhage at access site of entry; incomplete aneurysm occlusion; infection; intima dissection; intracranial hemorrhage; ischemia; myocardial infarction; neurological deficits including stroke; parent artery occlusion; peripheral thromboembolic events; post-embolization syndrome; premature device detachment; recanalization; renal failure;

respiratory failure; revascularization; thromboembolic episodes; vessel spasm, thrombosis, dissection, or perforation.

Penumbra Delivery Microcatheters — Indication for Use

The Penumbra Delivery Microcatheters are intended to assist in the delivery of diagnostic agents, such as contrast media, and therapeutic agents, such as occlusion coils to the peripheral and neuro vasculature.

Contraindications

There are no known contraindications.

Warnings

The Penumbra Delivery Microcatheters should only be used by physicians who have received appropriate training in interventional techniques.

Precautions

- The devices are intended for single use only. Do not resterilize or reuse. Resterilization and/or reuse may result in ineffective catheter coating lubrication, which may result in high friction and the inability to access the target location.
- Do not use kinked or damaged devices. Do not use open or damaged packages. Return all damaged devices and packaging to the manufacturer/distributor.

- Use prior to the "Use By" date.
- Use the Penumbra Delivery Microcatheters in conjunction with fluoroscopic visualization.
- Do not advance or withdraw the Penumbra Delivery Microcatheters against resistance without careful assessment of the cause using fluoroscopy. If the cause cannot be determined, withdraw the device. Moving or torquing the device against resistance may result in damage to the vessel or device.
- Maintain a constant infusion of an appropriate flush solution.
- If flow through the device becomes restricted, do not attempt to clear the lumen by infusion. Remove and replace the device.

Potential Adverse Events

Possible complications include, but are not limited to, the following: acute occlusion; hematoma or hemorrhage at access site; death; intracranial hemorrhage; hemorrhage; infection (at access site); distal embolization; ischemia (cardiac and/or cerebral); embolus (air, foreign body, thrombus, plaque); aneurysm perforation; false aneurysm formation; neurological deficits including stroke; vessel spasm, thrombosis, dissection, perforation or rupture; air embolism; emboli.

Caution: Federal (USA) law restricts these devices to sale by or on the order of a physician. Prior to use, please refer to the Instructions for Use for complete product indications, contraindications, warnings, precautions, potential adverse events, and detailed instructions for use. Renderings for illustrative purposes only. Images used with permission. Consent on file at Penumbra, Inc. Please contact your local Penumbra representative for more information.

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