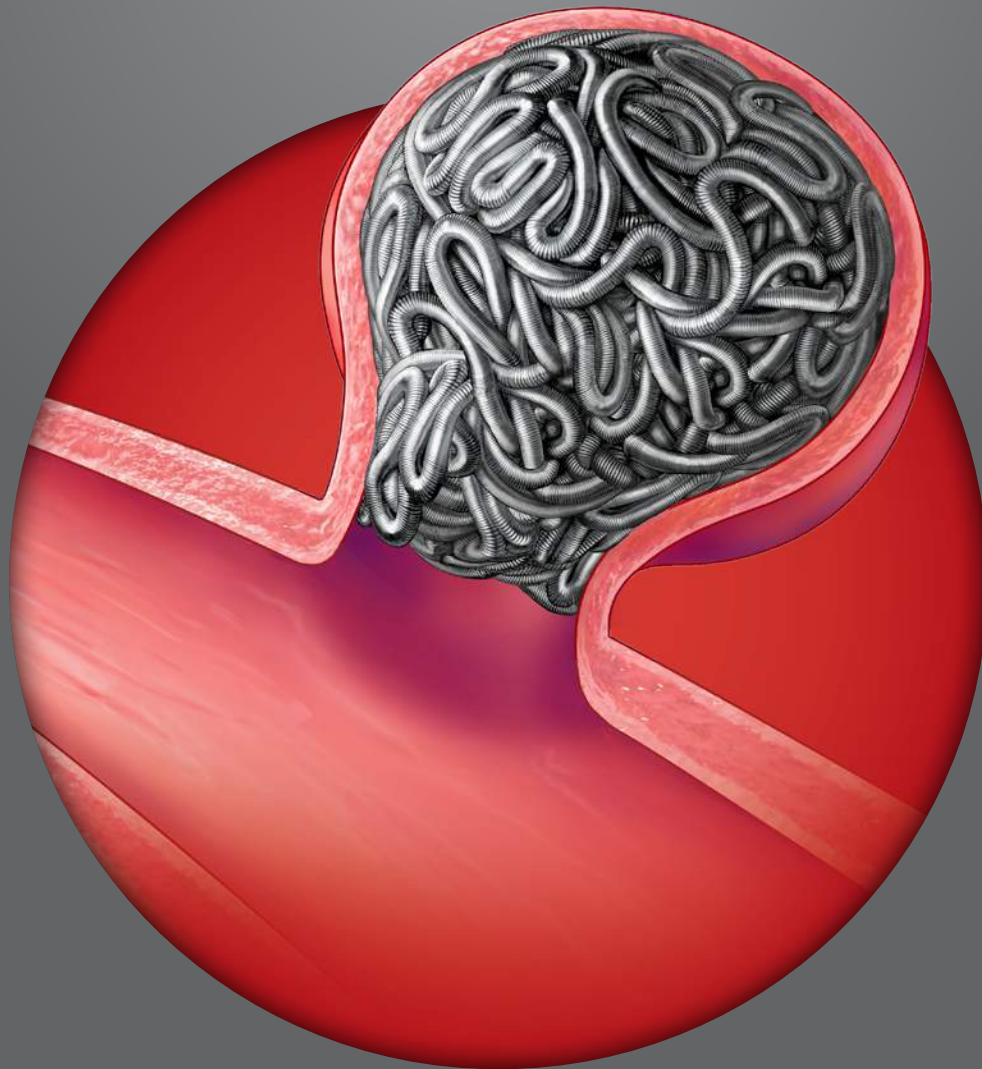


Ruby[®] Coil

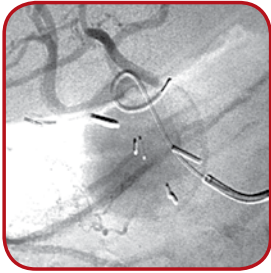
Large Volume Detachable Coils



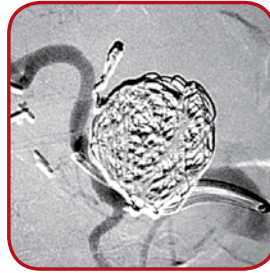
Penumbra 

Ruby® Case Examples

38 mm Hepatic Artery Aneurysm



Pre-Treatment



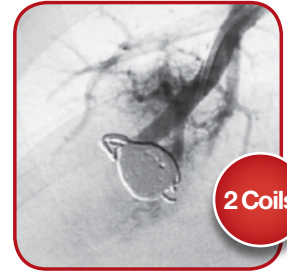
Post-Treatment

Dr. James Benenati
Miami Cardiac and Vascular Institute, FL

Pulmonary AVM



Pre-Treatment



2 Coils

Post-Treatment

Dr. J Moskovitz
Florida Hospital, Orlando, FL

Y90 Embolization



Post-Treatment

Dr. Dmitri Samoilov
Medical Center Radiologists, VA

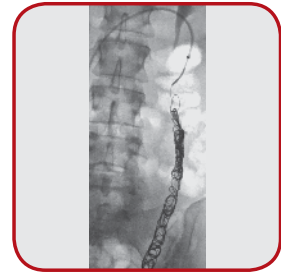
Type 2 Endoleak



Post-Treatment

Dr. Corey Teigen
Sanford Health, ND

Ovarian Vein Embolization



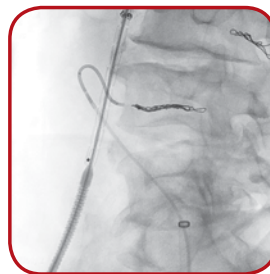
Post-Treatment

Dr. Olga Brook
Beth Israel Deaconess Medical Center, MA

Type 2 Endoleak



Pre-Treatment



Intra-Operative



Post-Treatment

Dr. Frank Arko
Sanger Heart and Vascular Institute, NC

Volume Advantage



30 cm Ruby® Coil

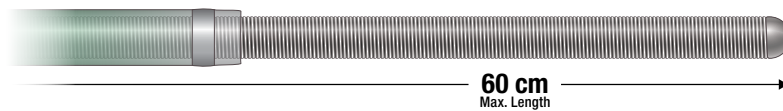


30 cm Conventional Detachable Coil

Reduces the number of coils and procedure time by maximizing length and coil thickness.^a

Only Coil to Provide 60 cm Length and .020" Thickness

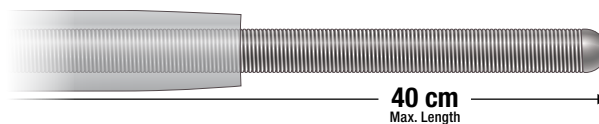
Ruby® Coil
LANTERN® Microcatheter



Coil Thickness

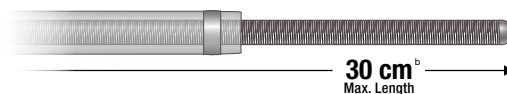
.020"

Conventional 35 Coil
035 Diagnostic Catheter



.021"

Conventional 18 Coil
18 Microcatheter



.012"

a. Data on file at Penumbra, Inc.
b. Based on 8 mm coil.

Large Volume Detachable Coils



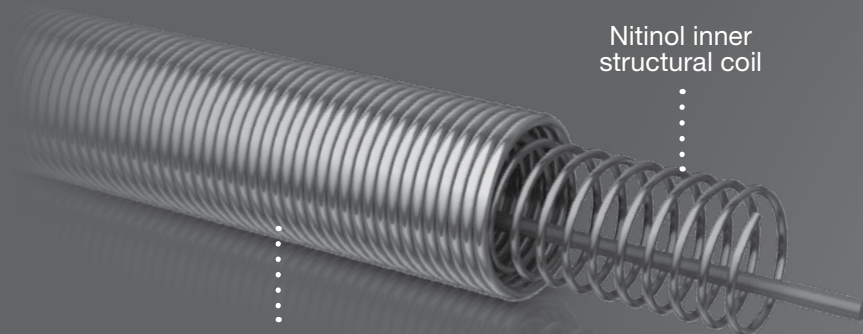
Standard
32 mm × 60 cm



Soft
2 mm × 1 cm

SOFTNESS

Choice of Standard and Soft coils provide superior packing density while avoiding catheter kick-out.



Thin filament,
.020" diameter
platinum coil

Nitinol inner
structural coil

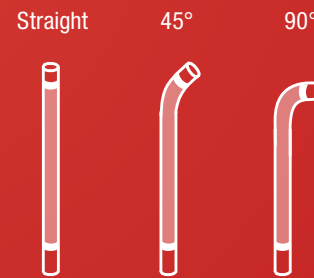
Unique Tri-Layer Coil Design

Stretch resistant
Nitinol wire

EXTREME DELIVERABILITY

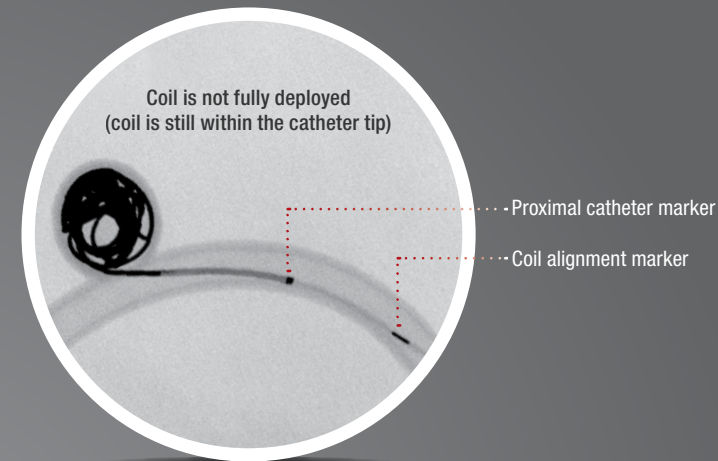
Only coil designed to be delivered through a .025-.027" high-flow microcatheter.

Tip Shapes

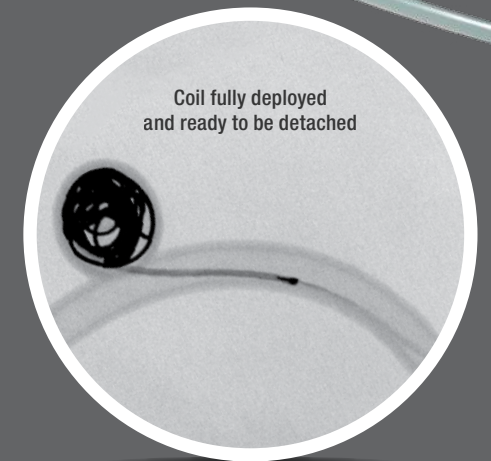


MECHANICAL DETACHMENT

Ruby® Coil deployed from LANTERN® High-Flow Microcatheter



Ruby® Coil is fully retractable and resheathable, allowing user to achieve ideal placement in the target vessel.



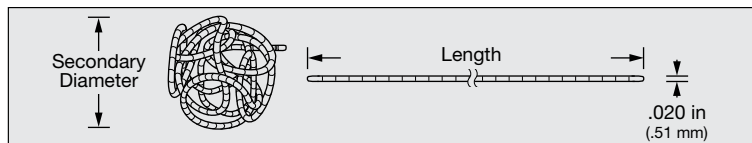
Coil alignment marker passes proximal catheter marker to form "T," indicating that Ruby Coil can now be detached.

LANTERN® Microcatheter

- Low Profile**
2.6 F Distal Shaft
Enables Access to Small
Tortuous Vasculature
- High-Flow**
Large Lumen for Optimal
Contrast Injections
- Increased Visibility**
Provides Confident
Placement
- Dual Markers**
Facilitates Precise
Coil Deployment
- 8 Transition Zones**
for Advanced
Trackability

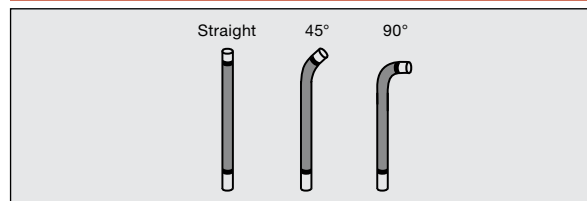
Ordering Information

Ruby® Coil



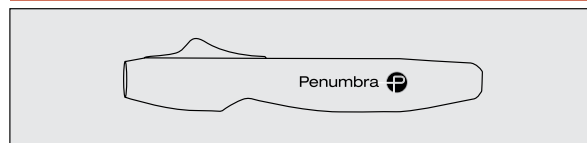
Catalog Number	Secondary Diameter (mm)	Length (cm)	Catalog Number	Secondary Diameter (mm)	Length (cm)
Frame – COMPLEX STANDARD			Frame – COMPLEX STANDARD (cont.)		
RBY2C0305	3	5	RBY2C1660	16	60
RBY2C0312	3	12	RBY2C1857	18	57
RBY2C0320	3	20	RBY2C2060	20	60
RBY2C0410	4	10	RBY2C2457	24	57
RBY2C0415	4	15	RBY2C2860	28	60
RBY2C0420	4	20	RBY2C3260	32	60
RBY2C0430	4	30	Fill – COMPLEX SOFT		
RBY2C0435	4	35	RBY4C0201	2	1
RBY2C0512	5	12	RBY4C0202	2	2
RBY2C0520	5	20	RBY4C0204	2	4
RBY2C0530	5	30	RBY4C0305	3	5
RBY2C0620	6	20	RBY4C0315	3	15
RBY2C0630	6	30	RBY4C0406	4	6
RBY2C0725	7	25	RBY4C0415	4	15
RBY2C0825	8	25	RBY4C0620	6	20
RBY2C0840	8	40	RBY4C0630	6	30
RBY2C0930	9	30	RBY4C0835	8	35
RBY2C1035	10	35	RBY4C0860	8	60
RBY2C1240	12	40	RBY4C1650	16	50
RBY2C1260	12	60	RBY4C2060	20	60
RBY2C1460	14	60			

LANTERN® Delivery Microcatheter



Catalog Number	Tip Shape	Length (cm)	ID	OD Distal / Proximal
PXSLIMLAN115STR	Straight Tip	115	.025"	2.6 F / 2.95 F
PXSLIMLAN115T45	45° Tip			
PXSLIMLAN115T90	90° Tip			
PXSLIMLAN135STR	Straight Tip	135	.025"	2.6 F / 2.95 F
PXSLIMLAN135T45	45° Tip			
PXSLIMLAN135T90	90° Tip			
PXSLIMLAN150STR	Straight Tip	150	.025"	2.6 F / 2.95 F
PXSLIMLAN150T45	45° Tip			
PXSLIMLAN150T90	90° Tip			

Ruby® Coil Detachment Handle



Catalog Number	Description
RH1	Detachment Handle

Indication For Use

The Ruby Coil System is indicated for arterial and venous embolizations in the peripheral vasculature.

Contraindications

There are no known contraindications.

Warnings

The Ruby Coil System should only be used by physicians who have received appropriate training in 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 withdraw 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

Potential complications include but are not limited to: Acute occlusion, air embolism, death, distal embolization,

emboli, false aneurysm formation, hematoma or hemorrhage at puncture/access site/site of entry, infection, intracranial hemorrhage, ischemia, neurological deficits including stroke, vessel spasm, thrombosis, dissection or perforation, thrombo-embolic episodes, neurological deficits including stroke and possibly death, vascular thrombosis, post-embolization syndrome revascularization, recanalization, inadequate occlusion, aneurysm rupture, parent artery occlusion, incomplete aneurysm filling

Indication For Use

The Penumbra Delivery Microcatheters are indicated to assist in the delivery of diagnostic agents, such as contrast media, and therapeutic devices, 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 opened 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 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

Penumbra

www.penumbrainc.com

Penumbra, Inc. USA
One Penumbra Place
Alameda, CA 94502
USA
1.888.272.4606
T 1.510.748.3200
F 1.510.748.3232
order@penumbrainc.com
info@penumbrainc.com

Penumbra Europe GmbH
Am Borsigturm 44
13507 Berlin
Germany
T +49 30 2005 676-0
F +49 30 2005 676-10
order@penumbrainc.de
info@penumbrainc.de

Penumbra Neuro Australia Pty Ltd
Suite 3, Level 5, 1 Oxford Street
Darlinghurst NSW 2010
Australia
T +61-1300 817 025
F +61-1300 817 026
order.anz@penumbrainc.com

Product availability varies by country. 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 Ruby Coil System and Penumbra Delivery Microcatheters for complete product indications, contraindications, warnings, precautions, potential adverse events and detailed instructions for use. Images used with permission. Consents on file at Penumbra, Inc. Photographs taken by and on file at Penumbra, Inc. Please contact your local Penumbra representative for more information.

Copyright ©2013–2017 Penumbra, Inc. All rights reserved. The Penumbra P logo, Ruby, and LANTERN are registered trademarks or trademarks of Penumbra, Inc. in the USA and other countries.

6728, Rev. D 05/17 USA