

**Medtronic**

Engineering the extraordinary

Pipeline™ Vantage

Embolization device with shield technology™

# The Vantage response



# Reduced material thrombogenicity

By covalently bonding phosphorylcholine to the surface of the implant, Shield Technology™ achieves a scientifically proven reduction in implant material thrombogenicity, thereby reducing blood contact activation in-vitro.<sup>1-5</sup>

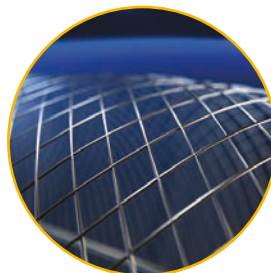
## Promotes flow diversion effect

Endothelialization is important to the success of flow diversion therapy. Pipeline™ Vantage focuses on 3 key areas that promote the flow diversion effect.

**Optimized**  
pore density\*



**Optimized**  
wall thickness\*



**Optimized**  
wall apposition\*



Maintain proven metal to vessel coverage of Pipeline™

# More control, precise delivery

Improvements to both the device and delivery system provides **more control** during navigation, deployment and re-sheathing so you can achieve a **precise delivery**, when treating aneurysms near and far.

## Key design features\*:

- Advanced Re-sheathing mechanism for **reduced friction**
- Single core wire for **increased pushability** and **stability**
- 44% thinner ePTFE sleeves for **faster distal braid release**
- Compatible with Phenom™ 21 Catheter for **easier distal access**
- Compatible with Rist™ Radial Access Guide Catheter **make the turn**

## 2021 & beyond

- ✓ 4th Generation Pipeline™ Vantage launched in Europe

## 2020

-  Shield 1yr study

## 2018

-  Premier study

## 2017

-  Pflex study

## 2016

-  PUF5 5 year follow-up results  
**CNS award winner**

## 2015

- ✓ 2<sup>nd</sup> and 3<sup>rd</sup> Generation Pipeline™ Flex launched in United States

## 2014

- ✓ 2<sup>nd</sup> and 3<sup>rd</sup> Generation Pipeline™ Flex & Shield Technology™ launched in Europe

-  Intrepid study

## 2013

-  Results of PUF5 5 year study

## 2012

-  Hong Kong experience

-  Ankara experience

## 2011

- ✓ 1<sup>st</sup> Generation Pipeline™ Device launched in United States

-  Australian registry

## 2010

-  Pita study

## 2009

-  Buenos Aires experience

## 2008

- ✓ 1<sup>st</sup> Generation Pipeline™ device launched in Europe

-  Start of PUF5 5 year study

\*When compared to Pipeline™ Flex with Shield Technology™

Product catalog number	Diameter (mm)	Length (mm)
PED3-021-250-10	2.5	10
PED3-021-250-12	2.5	12
PED3-021-250-14	2.5	14
PED3-021-250-16	2.5	16
PED3-021-250-20	2.5	20
PED3-021-275-12	2.75	12
PED3-021-275-14	2.75	14
PED3-021-275-16	2.75	16
PED3-021-275-20	2.75	20
PED3-021-300-12	3.0	12
PED3-021-300-14	3.0	14
PED3-021-300-16	3.0	16
PED3-021-300-20	3.0	20
PED3-021-325-12	3.25	12
PED3-021-325-14	3.25	14
PED3-021-325-16	3.25	16
PED3-021-325-20	3.25	20
PED3-021-350-12	3.5	12
PED3-021-350-14	3.5	14
PED3-021-350-16	3.5	16
PED3-021-350-20	3.5	20
PED3-021-350-25	3.5	25
PED3-027-350-12	3.5	12
PED3-027-350-14	3.5	14
PED3-027-350-16	3.5	16
PED3-027-350-20	3.5	20
PED3-027-350-25	3.5	25

Product catalog number	Diameter (mm)	Length (mm)
PED3-027-400-12	4.0	12
PED3-027-400-14	4.0	14
PED3-027-400-16	4.0	16
PED3-027-400-20	4.0	20
PED3-027-400-25	4.0	25
PED3-027-400-30	4.0	30
PED3-027-450-12	4.5	12
PED3-027-450-14	4.5	14
PED3-027-450-16	4.5	16
PED3-027-450-20	4.5	20
PED3-027-450-25	4.5	25
PED3-027-450-30	4.5	30
PED3-027-450-40	4.5	40
PED3-027-500-14	5.0	14
PED3-027-500-16	5.0	16
PED3-027-500-20	5.0	20
PED3-027-500-25	5.0	25
PED3-027-500-30	5.0	30
PED3-027-500-40	5.0	40
PED3-027-550-16	5.5	16
PED3-027-550-20	5.5	20
PED3-027-550-30	5.5	30
PED3-027-550-40	5.5	40
PED3-027-550-50	5.5	50
PED3-027-600-16	6.0	16
PED3-027-600-20	6.0	20
PED3-027-600-30	6.0	30
PED3-027-600-40	6.0	40
PED3-027-600-50	6.0	50

1. Medtronic Internal Study, D00422708 Rev. A , Competitive Test Report - Material Thrombogenicity Evaluation of Flow Diversion Devices.
2. Girdhar G, Li J, Kostousov L, Wainwright J, Chandler WL. In-vitro thrombogenicity assessment of flow diversion and aneurysm bridging devices. J Thromb Thrombolysis. 2015 Nov;40(4):437-43. doi: 10.1007/s11239-015-1228-0. PMID: 25975924.
3. D00422708 Rev A.
4. Girdhar G, Ubl S, Jahanbekam R, Thinamany S, Belu A, Wainwright J, Wolf MF. Thrombogenicity assessment of Pipeline, Pipeline Shield, Derivo and P64 flow diverters in an in vitro pulsatile flow human blood loop model. eNeurologicalSci. 2019 Jan 8;14:77-84.
5. Girdhar G, Andersen A, Pangerl E, Jahanbekam R, Ubl S, Nguyen K, Wainwright J, Wolf MF. Thrombogenicity assessment of Pipeline Flex, Pipeline Shield, and FRED flow diverters in an in vitro human blood physiological flow loop model. J Biomed Mater Res A. 2018 Dec;106(12):3195-3202.

See the device manual for detailed information regarding the instructions for use, indications, contraindications, warnings, precautions, and potential adverse events. For further information, contact your local Medtronic representative and/or consult the Medtronic website at [medtronic.eu](http://medtronic.eu).

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