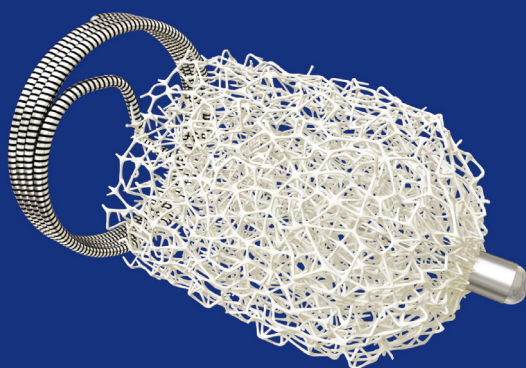


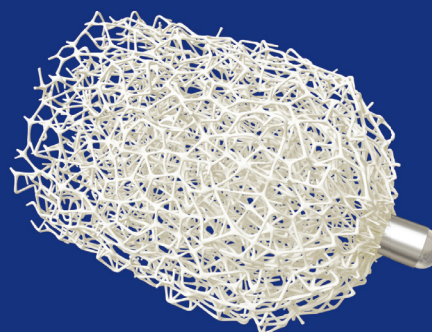
**Shape Memory Polymer**

Expanding embolization solutions

## Space-filling embolization technology



**IMPEDE®**  
Embolization Plug



**IMPEDE-FX**  
Embolization Plug

# The science of Shape Memory Polymer

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## PREDICTABLE SPACE FILL

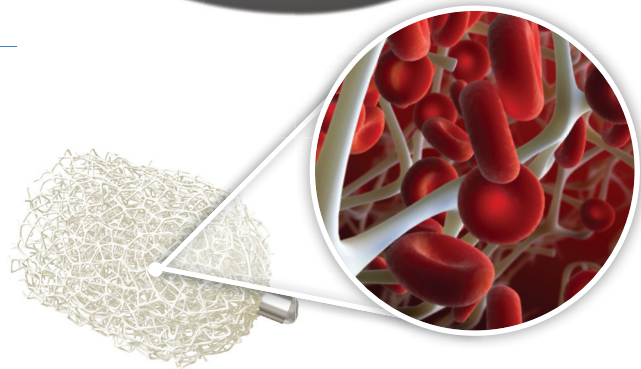
Uniform, high volume space fill  
Controlled deployment and fill  
Compliant, conformable material



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## STABLE CLOT FORMATION

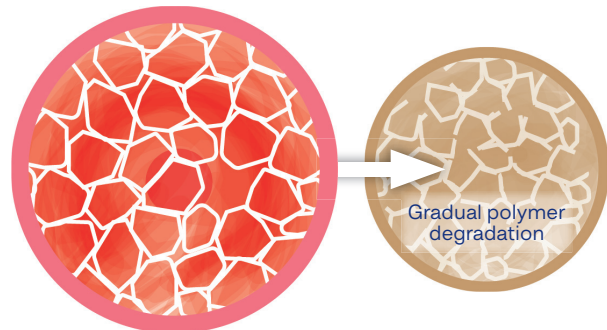
Thrombus formation throughout  
porous embolic scaffold<sup>†</sup>



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## PROGRESSIVE HEALING

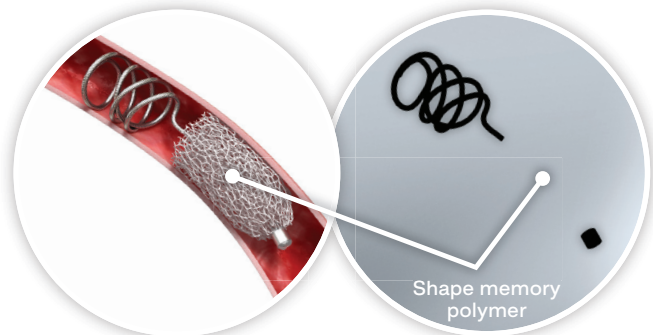
Conversion of acute thrombus to  
mature connective tissue  
No chronic, active inflammation<sup>†</sup>  
Gradual, steady rate of shape  
memory polymer degradation<sup>†</sup>



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## CLEAR IMAGING

Radiolucent shape memory  
polymer facilitates procedural  
and follow-up imaging of  
surrounding anatomy



# Shape Memory Polymer family

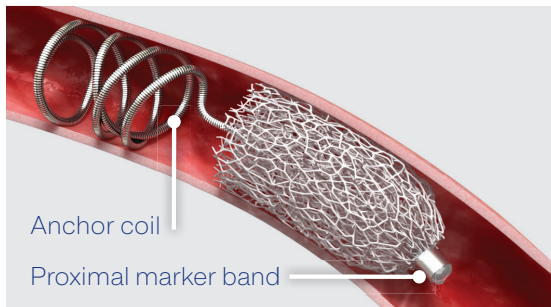
## Peripheral vascular embolization

### IMPEDE Embolization Plug

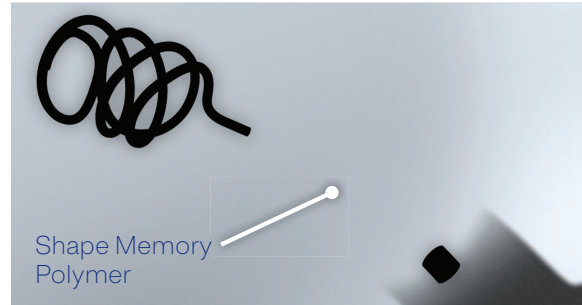
Up to **1.25 mL** volume fill capacity  
Nitinol anchor coil for secure positioning  
Beneficial in high flow conditions



#### Maximum space-filling



#### Stable occlusion & minimal artifact

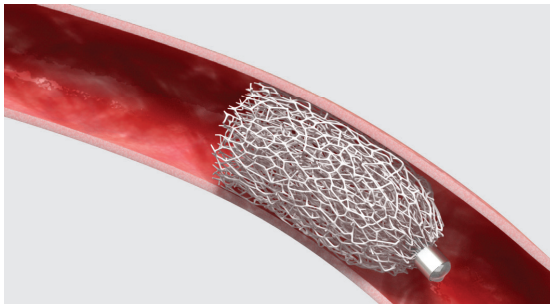


### IMPEDE-FX Embolization Plug

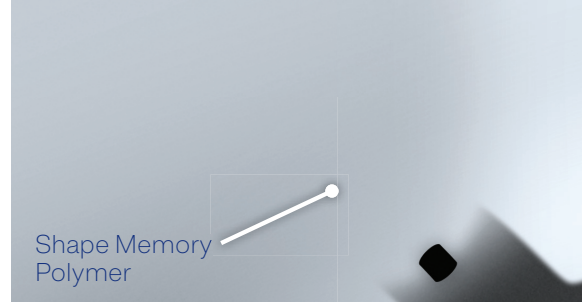
Up to **1.25 mL** volume fill capacity  
Short landing zone required  
Minimal radial force for low vessel trauma



#### Maximum space-filling

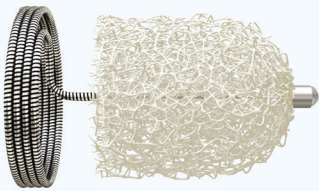
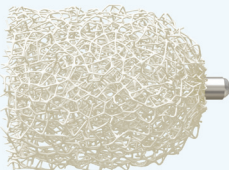


#### Stable occlusion & minimal artifact





# Dimensions & details

			IMPEDE			IMPEDE-FX		
CRIMPED								
EXPANDED								
			IMP-05	IMP-07	IMP-10	IMP-FX-06	IMP-FX-08	IMP-FX-12
Vessel diameter	mm		2 – 5	4 – 7	6 – 10	–	–	–
Proximal marker diameter	inch		.032	.046	.065	.032	.046	.065
	mm		0.81	1.17	1.65	0.81	1.17	1.65
Expanded SMP plug diameter	mm		6	8	12	6	8	12
SMP plug length	mm		10	10	15	10	10	15
Anchor coil diameter	mm		7	9	13	–	–	–
Catheter ID*	min	inch	.038	.055	.070	.038	.055	.070
	max		.057	.071	.090	.057	.071	.090
	min	mm	0.97	1.40	1.78	0.97	1.40	1.78
	max		1.45	1.80	2.29	1.45	1.80	2.29
Compatible IMPEDE			Not applicable			IMP-05	IMP-05 IMP-07	IMP-05 IMP-07 IMP-10

SMP, shape memory polymer.

\*Catheter recommendations based on .035" guidewire.

**INDICATION:** The IMPEDE Embolization Plug is indicated to obstruct or reduce the rate of blood flow in the peripheral vasculature.

**INDICATION:** The IMPEDE-FX Embolization Plug is indicated for use with the IMPEDE Embolization Plug to obstruct or reduce the rate of blood flow in the peripheral vasculature.

**CAUTION:** Federal (U.S.A.) law restricts this device to sale by or on the order of a physician. Indications, contraindications, warnings and instructions for use can be found in the product labeling supplied with each device.

‡ Evidence from preclinical studies. The images are illustrative and do not represent actual vessel anatomy, nor the actual size of any products.

**Patent:** [www.shapemem.com/patents](http://www.shapemem.com/patents)

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[www.shapemem.com](http://www.shapemem.com)

**shape**  
memory medical