

# Shape Memory Polymer

*The complete embolization solution*

IMPEDE® Embolization Plug

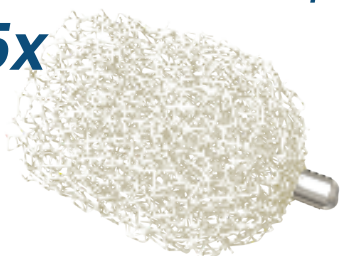


IMPEDE-FX Embolization Plug



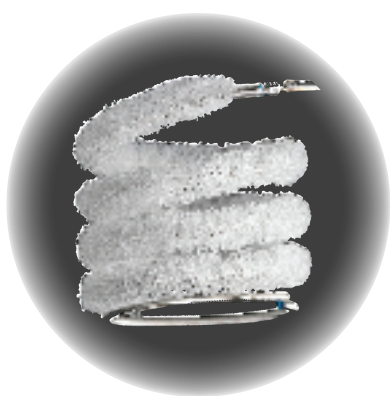
IMPEDE-FX *Rapid Fill*

**5x**



*in one introducer*

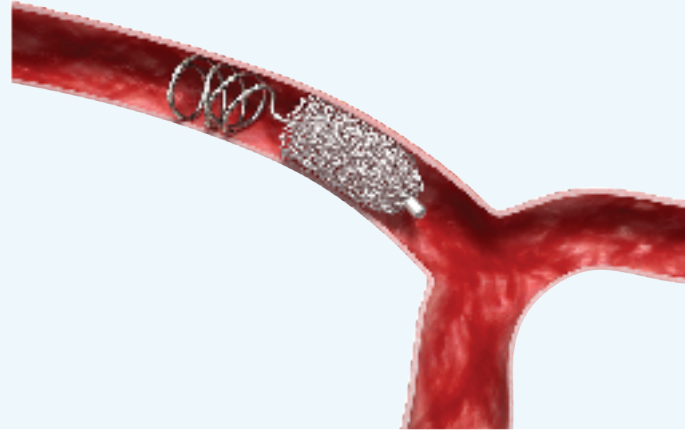
TrelliX® Embolic Coil



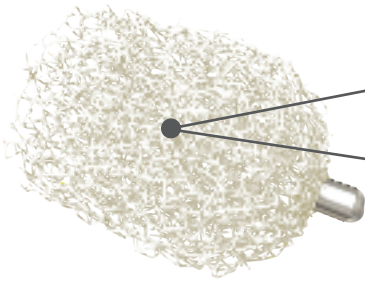
# The Science of Shape Memory Polymer

## Predictable space fill

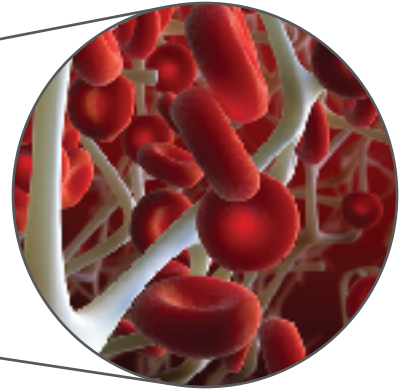
- Uniform, high volume space fill
- Controlled deployment and fill
- Compliant, conformable material



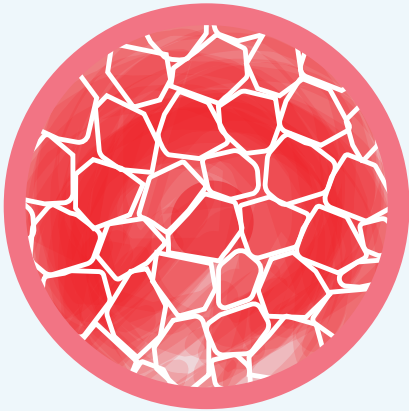
## Stable clot formation



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

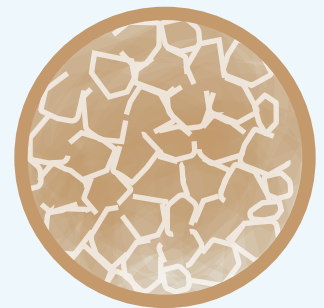


## Accelerated healing<sup>‡</sup>



Conversion of acute thrombus to mature connective tissue

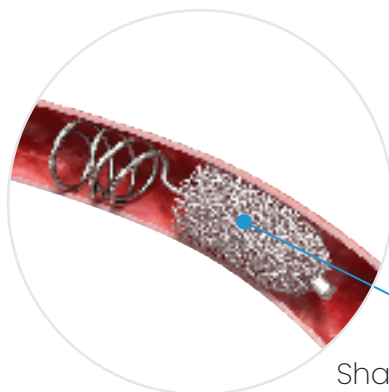
No chronic, active inflammation<sup>‡</sup>



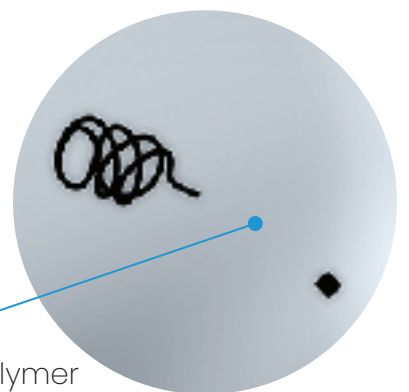
Gradual, steady rate of shape memory polymer degradation<sup>‡</sup>

## Clear imaging

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



Shape memory polymer



# Peripheral Vascular Embolization

## Shape memory polymer family

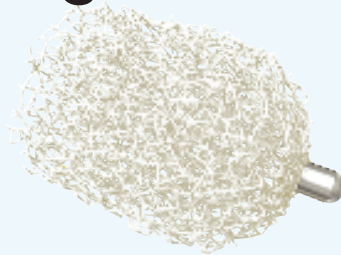


### IMPEDE Embolization Plug

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

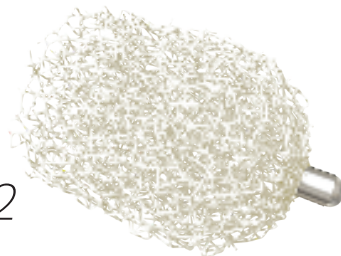
### IMPEDE-FX Embolization Plug

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

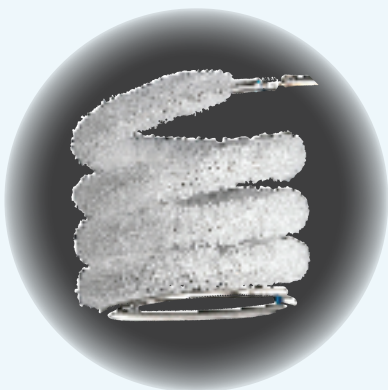


### IMPEDE-FX *Rapid Fill*

- ~**6.25 mL** embolic material in a single step
- Rapidly fills space when multiple devices are indicated
- Less radiation and contrast
- Shorter procedure times



5x IMPEDE-FX-12



### TrelliX Embolic Coil

- Reach distal, tortuous anatomy
- 3x packing density compared to bare metal coil
- .021" microcatheter compatible
- .030" expanded polymer nominal diameter

# Dimensions & Details

## IMPEDE Family (Pushable)

		IMPEDE			IMPEDE-FX			IMPEDE-FX Rapid Fill
		IMP-05	IMP-07	IMP-10	IMP-FX-06	IMP-FX-08	IMP-FX-12	IMP-FX-12x5
Vessel diameter	mm	2 – 5	4 – 7	6 – 10	—	—	—	—
Proximal marker diameter	inch	.032	.046	.065	.032	.046	.065	.065
	mm	0.81	1.17	1.65	0.81	1.17	1.65	1.65
Expanded SMP plug diameter	mm	6	8	12	6	8	12	12
SMP plug length	mm	10	10	15	10	10	15	15
Anchor coil diameter	mm	7	9	13	—	—	—	—
Anchor coil length	cm	8	9	15.5	—	—	—	—
Catheter ID*	min	inch	.038	.055	.070	.038	.055	.070
			.057	.071	.090	.057	.071	.090
	min	mm	0.97	1.40	1.78	0.97	1.40	1.78
			1.45	1.80	2.29	1.45	1.80	2.29

SMP, shape memory polymer. \*Catheter recommendations based on .035" guidewire.

## TrelliX Embolic Coil

		Length LL (cm)							
Part Number	Diameter (mm)	02	04	06	08	10	12	15	20
TCF-18-03-LL	3	●	●	●	●	●			
TCF-18-04-LL	4			●	●	●	●		
TCF-18-05-LL	5			●	●	●		●	
TCF-18-06-LL	6				●	●		●	
TCF-18-07-LL	7						●	●	●
TCF-18-08-LL	8							●	●
TCF-18-09-LL	9							●	●
TCF-18-10-LL	10							●	●
TCF-18-11-LL	11								●
TCF-18-12-LL	12								●
TCF-18-14-LL	14								●
TCF-18-16-LL	16								●
TDC-1	TrelliX Detachment Controller (5-pack)**								

TrelliX Embolic Coils are compatible with standard .021" microcatheters. SMP self-expands to .030" nominal diameter in vessel. \*\*Electrolytic detachment mechanism, single-use disposable.

**INDICATION:** The IMPEDE Embolization Plug, the IMPEDE-FX Embolization Plug, and the IMPEDE-FX Rapid Fill are indicated to obstruct or reduce the rate of blood flow in the peripheral vasculature.

**INDICATION:** The TrelliX Embolic Coil System is intended to obstruct or occlude blood flow in vascular abnormalities of the neurovascular and peripheral vessels. Indications include: Intracranial aneurysms, other neurovascular abnormalities such as arteriovenous malformations and arteriovenous fistulae, arterial and venous embolizations in the peripheral vasculature.

**INDICATION:** The TrelliX Detachment Controller is intended for use with the TrelliX Embolic Coil System which is intended to obstruct or occlude blood flow in vascular abnormalities of the neurovascular and peripheral vessels. Indications include: Intracranial aneurysms, other neurovascular abnormalities such as arteriovenous malformations and arteriovenous fistulae, arterial and venous embolizations in the peripheral vasculature.

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)

