

EMBOLIC SPHERES						
Company	Product Name	Composition	Type	Sizes (µm)	Color Coded	Indicated Use
AngioDynamics	LC Bead	Polyvinyl alcohol hydrogel microsphere	Calibrated sphere	100–300, 300–500, 500–700	Labels are color coded and the beads are tinted blue for better visualization	Embolization of HVTs and peripheral AVMs
BioSphere Medical	Embosphere Microspheres	Trisacryl cross-linked with gelatin	Spherical microsphere	40–120, 100–300, 300–500, 500–700, 700–900, 900–1200	Labels are color coded	Embolization of AVMs, HVTs, and symptomatic uterine fibroids
	EmboGold Microspheres					Embolization of HVTs and AVMs
	Quadrasphere	Super absorbent polymer	Expanding spherical microsphere	Dry sizes: 50–100, 100–150, 150–200		Embolization of HVTs and peripheral AVMs
Boston Scientific Corporation	Contour SE Microspheres	Spherical PVA	Sphere	100-300, 300-500, 500-700, 700-900, 900-1200	Packaging by size	Embolization of peripheral HVTs, including leiomyoma uteri and peripheral AVMs
CeloNova BioSciences, Inc.	Embozene Color-Advanced Microspheres	Hydrogel core with Polyzene-F coating	Sphere	40, 100, 250, 400, 500, 700, 900.	Microspheres are dyed size-specific colors for definitive visualization and increased procedural safety, with corresponding color-coded syringes, labels, and boxes.	Embolization of HVTs and AVMs
Terumo Interventional Systems	Bead Block	Acrylamido polyvinyl alcohol macromer	Sphere	100–300, 300–500, 500–700, 700–900, 900–1200	Spheres, syringe, and box by size	Embolization of HVTs and AVMs

VASCULAR PLUGS						
Company Name	Product Name	Material Used	Sizes (mm)	Delivery Cable Length (cm)	Recommended Guide Catheter ID Sizes (inch)	Indicated Use
AGA Medical Corporation	Amplatzer Vascular Plug	Nitinol	4–8	135	0.056	Arterial and venous embolizations in the peripheral vasculature
			10–12		0.067	
			14–16		0.088	
	Amplatzer Vascular Plug II		3–8		0.056	
			10–12		0.07	
			14–16		0.086	
			18–22		0.098	

EMBOLIZATION COILS						
Company Name	Product Name	Material Used	Coil Diameter (mm)	Coil Length (cm)	Recommended Delivery Catheter ID Sizes (inch)	Indicated Use
Boston Scientific Corporation*	VortX-18 Diamond Shape Fibered Platinum Coils	Platinum	Small secondary/large secondary: 2/3, 2/4, 2/5, 2/6	2.3, 4.1, 5.8, 8	0.021	0.018-inch fibered platinum coils are intended for arterial and venous embolizations in the peripheral vasculature
	VortX-18 Fibered Platinum Coils			2.2, 4.2, 6, 8.5		
	Straight .018-inch Fibered Platinum Coils		Straight	0.2, 0.5		
	Figure-8 0.018-inch Fibered Platinum Coils		2	1		
	Multi-Loop 0.018-inch Fibered Platinum Coils		4	3		
	Complex Helical 0.018-inch Fibered Platinum Coils		4, 6, 7, 8, 10, 11	2, 3, 4, 5, 6, 7		
	Multi-Loop 0.035-inch Fibered Platinum Embolization Coils		3, 4, 5, 6, 7, 9	2, 3, 4, 5, 6	0.038	For arterial and venous embolizations in the peripheral vasculature
	VortX-35 Vascular Occlusion Coils		Apex diameter/base diameter: 2/4, 3/5, 3/6, 3/7	3, 3.5, 5.3, 6.7		
	Interlock Fibered IDC Occlusion System	Platinum-tungsten alloy	2D Helical: 3, 4, 5, 6, 8, 10, 12, 14	6, 8, 10, 12, 15, 20, 30	0.021	To obstruct or reduce rate of blood flow in the peripheral vasculature device is not intended for neurovascular use
			VortX Diamond: small secondary/large secondary 2/3, 2/4, 2/5, 2/6	2.3, 4.1, 5.8, 8		

*Please reference appropriate product Instructions for Use from Boston Scientific for a list of indications, warnings, precautions, and potential adverse effects.

EMBOLIZATION COILS (CONTINUED)						
Company Name	Product Name	Material Used	Coil Diameter (mm)	Coil Length (cm)	Recommended Delivery Catheter ID Sizes (inch)	Indicated Use
Cook Medical	Nester Embolization Coils	Platinum	4, 6, 8, 10, 12	14	0.035	Arterial and venous embolization
	MicroNester Embolization Coils		3, 4, 6, 8, 10		0.018	
	Tornado Embolization Coils		5-3, 6-3, 7-3, 8-4, 8-5, 10-5	4.1–12.5	0.035	Embolization of selective vessel supply to AVMs, trauma, bleeding, and other vascular lesions
	Tornado Embolization Microcoils		3-2, 4-2, 5-2, 6-2, 7-3, 8-4, 10-4	2–14.2	0.018	Embolization of selective vessel supply to AVMs, trauma, bleeding, and other vascular lesions
	Hilal Embolization Coils		Straight to 5	0.5–3		Embolization of selective vessel supply to AVMs and other vascular lesions of the brain, spinal cord, and spine
	MReye Embolization Coils	Inconel	3, 5, 8, 10, 12, 14, 15, 20, 25	2, 3, 4, 5, 8, 10, 12, 15	0.035 or 0.038	Arterial and venous embolization
	Stainless Steel Embolization Coils	Stainless steel	6, 8, 10, 15, 20	8, 10, 15	0.052	
	MReye Flipper Detachable Embolization Coils	Inconel	3, 5, 6.5, 8	3, 4, 5, 6, 8, 10, 12	0.041	Arterial and venous vessel embolization in the peripheral vasculature
Terumo Interventional Systems	Azur Peripheral HydroCoil Pushable 0.018-inch System	Platinum and hydrogel	2, 3, 4, 5, 6, 8, 10	2, 4, 6, 10, 14	0.022	Arterial and venous vessel embolization in the peripheral vasculature
	Azur Peripheral HydroCoil Pushable 0.035-inch System		4, 5, 6, 8, 10, 15	4, 6, 10, 14	0.035	
	Azur Peripheral HydroCoil Detachable 0.018-inch System		3	5, 10	0.022–0.025	
			4	5, 10, 15, 20		
			6, 8, 10	10, 15, 20		
			12	15, 20		
			15	15, 20, 30		
			20	20, 30		
	Azur Peripheral Framing Coil Detachable 0.018-inch System	Platinum	8, 10, 14, 20	20, 26, 34, 50		

CEREBRAL COILS

Company Name	Product Name	Materials Used	Coil Type	Method of Detachment	Key Benefits	FDA Market Cleared
Boston Scientific Corporation	GDC	Bare platinum	GDC 3D, GDC 360, GDC Standard, GDC Soft, GDC Soft SR, GDC UltraSoft	Electrolytic detachment	Durable aneurysm occlusion and benefits of healing mechanisms with Matrix biopolymer coating	Yes
	Matrix	PGLA, bare platinum	Matrix Firm, Matrix 3D, Matrix 360, Matrix Soft, Matrix SR, Matrix UltraSoft			
Codman Neurovascular	TruFill DCS Orbit Detachable Coils	Bare platinum	Complex Fill, Complex Standard, Mini Complex Fill, Helical Fill, and Tight Distal Loop technology	Hydraulic detachment	Excellent conformability and concentric filling for outstanding packing density	Yes
ev3 Inc.	Axium Detachable Coils	Bare platinum	Framing, filling, finishing	Linear release detachment	Stretch-resistance, optimal balance of softness, stability and volume for increased packing volume	Yes
MicroVention Terumo	HydroCoil MicroPlex	Bare-platinum and platinum hydrogel coated coils	MicroPlex coil system (compass/complex for framing helical coils for filling HyperSoft for finishing), HydroCoil and HydroSoft embolic systems, which combine platinum coils and hydrogel technology (HydroSoft for filling/finishing)	V-Grip detachment controller self contained integrated power supply rapid coil detachment: 0.75 seconds	Hydrogel provides increased filling and greater mechanical stability; platinum coils provide versatile framework, stability and conformability	Yes
Micrus Endovascular Corporation	Micrus Endovascular Microcoil System	Stretch-resistant bare-platinum and cerecyte-PGA coils	Micrusphere, Presidio, and Cashmere 3D Coils; Helipaq, Ultipaq, and Interpaq 2D Coils	Mechanical detachment using resistive heating	Frontline framing and filling coils; excellent conformability with increased packing volume; cerecyte line of enhanced embolic coils	Yes

NEUROVASCULAR LIQUID EMBOLICS					
Company Name	Product Name	Materials Used	Indication	Key Benefits	FDA Market Cleared
Codman Neurovascular	Trufill n-BCA Liquid Embolic System	n-BCA	Embolization of cerebral AVMs when presurgical devascularization is desired	Trufill n-BCA is a clear, free-flowing liquid, which polymerizes quickly upon contact with body fluid or tissue; it offers convenient preparation and delivery, customized radiopacity for visualization, and effective penetration of AVMs	PMA device
ev3 Inc.	Onyx Liquid Embolic System: Onyx 18 and Onyx 34	EVOH, DMSO, Tantalum	US: presurgical embolization of brain AVMs; EU: embolization of vascular lesions	Onyx Liquid Embolic System is an EVOH copolymer that provides full penetration and complete packing for neurovascular disorders, obliterating vascular lesions	PMA device
	Onyx HD-500		US: treating intracranial, saccular, sidewall aneurysms that present with a wide neck (≥ 4 mm) or with a dome-to-neck ratio < 2 that are not amenable to treatment with surgical clipping; EU: embolization of intracranial aneurysms	Onyx HD-500 is a high-viscosity formulation liquid embolic for the treatment of intracranial wide-necked aneurysms that provides complete volumetric filling to reduce recanalization and retreatment	HDE device

Abbreviations for all charts: 2D, two-dimensional; 3D, three-dimensional; AVM, arteriovenous malformation; DMSO, dimethyl sulfoxide; EVOH, ethylene vinyl alcohol; HDE, humanitarian device exemption; HVT, hypervascular tumor; ID, inner diameter; n-BCA, n-butyl cyanoacrylate; PGA, polyglycolic acid; PGLA, poly (lactic-co-glycolic acid); PMA, premarket approval.