

CLOSURE DEVICES

Company Name	Product Name	Type	Puncture Size (F)	Maximum Wire Compatibility (inch)	FDA Approved	Comments
Abbott Vascular	Perclose A-T	Suture	5–8	0.038	Yes	Automated knot for secure, mechanical vascular closure of 5- to 8-F access sites; braided polyester suture closure can be challenged and confirmed at the table
	Perclose ProGlide					Automated knot for secure, mechanical vascular closure of 5- to 8-F access sites; monofilament polypropylene suture closure can be challenged and confirmed at the table
	Prostar XL		8.5–10			Designed to close up to 10-F access sites; braided polyester suture for secure, mechanical closure; closure can be challenged and confirmed at the table
	StarClose	Nitinol clip	5, 6			An extravascular nitinol clip that mechanically closes the arteriotomy to ensure rapid hemostasis; closure can be challenged and confirmed at the table
	StarClose SE					Next-generation StarClose with enhanced ease-of-use design; extravascular nitinol clip that mechanically closes the arteriotomy to ensure rapid hemostasis; closure can be challenged and confirmed at the table
AccessClosure, Inc.	6-F/7-F Mynx Vascular Closure Device	Extravascular PEG sealant	6, 7	Utilizes existing procedural sheath	Yes	Designed to minimize closure-related pain; uses extravascular, conformable PEG sealant that provides durable hemostasis; dissolves within 30 days, leaving nothing behind
	Mynx M5 Vascular Closure Device		5			A true 5-F closure device; delivers extravascular, conformable PEG sealant through the existing 5-F procedural sheath; provides durable hemostasis and dissolves within 30 days, leaving nothing behind
Arstasis	Arstasis One	Access device	5, 6	0.018	510(k) cleared	Creates a shallow-angle needle pathway through arterial wall that serves as a natural one-way valve as an adjunct to manual compression to make closure devices unnecessary
Cardiva Medical, Inc.	Cardiva Catalyst II	Arteriotomy tamponade	5, 6, 7	Works through existing sheath	Yes	Catalyst II supports the body’s natural healing process with a deployable nitinol disc that provides temporary hemostasis at the arteriotomy, allowing it to recoil to the size of an 18-gauge needle; hemostatic coating on the wire accelerates the clotting cascade quickly facilitating vessel closure, preserving the artery and leaving nothing behind
	Cardiva Catalyst III	Arteriotomy tamponade for use with patients receiving heparin				Catalyst III expands on Catalyst II technology with the addition of a protamine sulfate coating; in patients receiving heparin, this coating acts to locally neutralize the effects of heparin in the tissue tract at the puncture site and further aid the body’s natural healing process

Prepared by the editors of *Endovascular Today* in conjunction with the product manufacturers.

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Morris Innovative	FISH (Femoral Introducer Sheath and Hemostasis) Device	Biomaterial (SIS) seal allows for remodeling of host tissue at the arteriotomy	5, 6, 7, 8	Works through existing sheath	Yes	Closure begins with access as the biomaterial sealant is introduced through the procedural sheath; the bio-material actively approximates the arteriotomy for sealing where it is most effective, completely healing the vessel without scar tissue formation
Nobles Medical Technology	SuperStitch	Polypropylene suture and knot	6–12	Works through existing sheath	Yes	True 6- and 8-F suture delivery through the sheath; does not enlarge arteriotomy; available in 6-, 8-, 12-F, as well as 12-F extended length
St. Jude Medical, Inc.	Angio-Seal VIP, Angio-Seal STS Plus	Mechanical seal	6, 8	6 F, 0.035; 8 F, 0.038	Yes	Suture, collagen, and anchor sandwich of the arteriotomy; all components reabsorb within 90 days; FDA labeling for immediate restick
	Angio-Seal Evolution		4-8			Next-generation Angio-Seal with automated collagen compaction and enhanced ease-of-use design; suture, collagen, and anchor sandwich of the arteriotomy; all components reabsorb within 90 days; FDA labeling for immediate restick
	VasoSeal VHD, ES, Elite	Extravascular collagen sponge	5, 6, 7, 8	0.038		Extravascular: no permanent intra-arterial component; bioabsorbable, proven collagen supports the natural healing process
	VasoSeal Low Profile		4, 5			Smaller design than VHD to accommodate 4- and 5-F puncture tracts
Vascular Solutions, Inc.	Duett Pro, Diagnostic Duett Pro	Thrombin and collagen procoagulant	5–9	Works through existing sheath	Yes	Utilizes the existing sheath, a balloon catheter, and a procoagulant to achieve hemostasis; Duett Pro is approved for use with glycoprotein IIb/IIIa inhibitors and ACT of ≤ 400

ACT, activated clotting time; PEG, polyethylene glycol.