

The use of barbed suture in **Gynecological** procedures

The major advantage of barbed sutures is its ease of **use with less time consumed**¹. Barbed sutures used in gynecological procedures **reduce suturing time, mean operative time and intraoperative bleeding**², and **provide excellent hemostasis**³.

ADVANTAGES OF BARBED SUTURES USE IN COMPARISON TO CONVENTIONAL SUTURES

C-SECTION



- ✓ Reduce **uterine incision closure time** ($P=0.001$)⁴, and **operative time**⁵
- ✓ Allow a lower rate of use of haemostatic sutures, OR 0.14, ($P=0.001$)⁴
- ✓ Decrease blood loss during incision closure ($P < 0.005$)⁶
- ✓ Permit lower incidence of postoperative ileus OR, 0.31, ($P=0.029$)⁴

HYSTERECTOMY



- ✓ Decrease the **incidence of vaginal cuff dehiscence** ($P=0.008$)^{7,8}
- ✓ Reduce the mean **suturing vaginal cuff closure time** ($P < 0.001$)⁹

MYOMECTOMY



- ✓ Reduce **suture time** ($P=0.01$)¹
- ✓ Reduce **total operative time** ($P=0.015$)¹
- ✓ Reduced **intraoperative blood loss** ($P < 0.05$)¹⁰⁻¹²
- ✓ Reduce significantly **perioperative complications** ($P=0.048$)¹³

SACROCOLPOPEXY



- ✓ Demonstrate a significant reduction in time, completing the attachment of mesh to the vagina with a mean time **11-16 minutes faster** ($P < 0.001$)¹⁴
- ✓ Demonstrate both safety and effectiveness in robotic sacrocolpopexy, yielding **satisfactory long-term results**^{14,15}

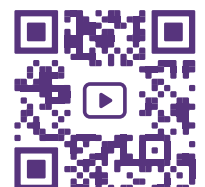
BREAST RECONSTRUCTION







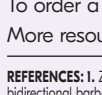
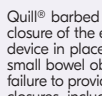
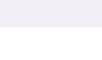
- ✓ **Facilitate uniform tension distribution**, thereby promoting a consistent and robust fixation of the inframammary fold (IMF) during the healing process¹⁶
- ✓ Can be used in a scarless approach for **creating or correcting an IMF**¹⁷
- ✓ **Decrease incidence of seromas and drainage time** in patients with running quilting sutures in autologous latissimus dorsi¹⁸ and **deep inferior epigastric artery perforator**¹⁹ flaps for breast reconstruction

CONCLUSION

Barbed sutures are now widely acknowledged for their safety, **efficacy, and efficiency in various obstetric and gynecological procedures**, providing acceptable levels of patient comfort and surgeon satisfaction.



View a list of gynecological procedures with Quill® barbed suture

	Material	Item Code	USP	Length (cm)	Colour	Needle					
	UTERINE CLOSURE	PDO	VLP-2015	1	30	●	½ Circle	Taper Point	36 mm	CT-1	Uni-directional
			VLP-2014	"	45	●	"	"	"	"	"
	RECTUS DEFECT	PDO Polypropylene	VLP-2015	1	30	●	"	"	"	"	"
			VLO-1002	"	45	○	"	"	"	"	"
	SUBCUTANEOUS & PARIETAL PERITONEUM	PDO	VLP-1002	0	30	●	"	"	"	"	"
			VLP-1004	"	45	●	"	"	"	"	"
	SUBCUTICULAR	Monoderm™	VLM-2004	3-0	60	○	¾ Circle	Precision Reverse Cutting	19 mm	PS-2	"
			VLM-3008	"	30	○	"	"	"	"	"
	VAGINAL CUFF CLOSURE	PDO	VLP-2008	0	20	●	½ Circle	Taper Point	26 mm	SH	Uni-directional
			VLP-1008	"	"	●	"	"	22 mm	SH-1	"
			VLP-1001	"	"	●	"	"	36 mm	CT-1	"
			VLP-2028	1	"	●	"	"	"	"	"
			VLP-2030	2	15	●	"	"	"	"	"
			VLP-2016	"	20	●	"	"	"	"	"
			RA-1000Q	0	14 x 14	●	"	"	36 mm	CT-1	Bi-directional
			RA-1079Q	"	"	●	"	"	26 mm	SH	"
			RA-1088Q	1	"	●	"	"	22 mm	SH-1	"
			RA-1003Q	"	"	●	"	"	36 mm	CT-1	"
	UTERINE CLOSURE	PDO	VLP-1001	0	20	●	½ Circle	Taper Point	36 mm	CT-1	Uni-directional
			VLP-1008	"	"	●	"	"	22 mm	SH-1	"
			VLP-2008	"	"	●	"	"	26 mm	SH	"
			VLP-2028	1	"	●	"	"	36 mm	CT-1	"
			VLP-2015	"	30	●	"	"	"	"	"
			RX-1068Q	0	7 x 7	●	"	"	36 mm	CT-1	Bi-directional
			RA-1000Q	"	14 x 14	●	"	"	"	"	"
			RA-1079Q	"	"	●	"	"	26 mm	SH	"
			RA-1078Q	0	10 x 10	●	"	"	"	"	"
			RA-1088Q	"	14 x 14	●	"	"	22 mm	SH-1	"
RA-1003Q	1	"	●	"	"	36 mm	CT-1	"			
	MESH FIXATION	Polypropylene	JA-1005Q	1	14 x 14	○	½ Circle	Reverse Cutting	26 mm	CP-2	"
	PERITONEAL CLOSURE	PDO	RX-1068Q	0	7 x 7	●	"	Taper Point	36 mm	CT-1	"
RA-1000Q			"	14 x 14	●	"	"	"	"	"	
	SUBCUTANEOUS	PDO	RA-1028Q-0	2-0	24 x 24	●	¾ Circle	Precision Reverse Cutting	26 mm	PS	"
			RA-1030Q-0	0	"	●	"	"	"	"	"
			RA-1029Q	"	"	●	½ Circle	Taper Point	36 mm	CT-1	"
			YA-2022Q	2-0	30 x 30	○	¾ Circle	Precision Reverse Cutting	19 mm	PS-2	"
			YA-2023Q	3-0	"	○	"	"	24 mm	PS-1	"
			VLM-3008	"	30	○	"	"	19 mm	PS-2	Uni-directional
VLM-3010	2-0	"	○	"	"	"	"	"			

* The proposal of these SKUs are based on recommendations; however the ultimate decision lies with the physician.*

To order a Quill® sample, arrange a trial, place an order or if you have a Quill® related question, contact us: quillemea@corza.com

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REFERENCES: 1. Zhang W, Lin Y. Use of Barbed Suture in Laparoscopic Myomectomy with Large Posterior Myoma. *J Coll Physicians Surg Pak.* 2022 Jul;32(7):920–3. 2. Giampalino P, De Rosa N, Tommaselli GA, Santangelo F, Nappi C, Sansone A, et al. Comparison of bidirectional barbed suture Stratifix and conventional suture with intracorporeal knots in laparoscopic myomectomy by office transvaginal hydrolaparoscopic follow-up: a preliminary report. *Eur J Obstet Gynecol Reprod Biol.* 2015 Dec;195:146–50. 3. Nambi Gowri K, King MW. A Review of Barbed Sutures—Evolution, Applications and Clinical Significance. *Bioengineering.* 2023 Mar 27;10(4):419. 4. Raischer HB, Massalha M, Iskander R, Izhaki I, Salim R. Knotless Barbed versus Conventional Suture for Closure of the Uterine Incision at Cesarean Delivery: A Systematic Review and Meta-analysis. *J Minim Invasive Gynecol.* 2022 Jul;29(7):832–9. 5. Khanuja K, Burd J, Ozcan P, Peleg D, Saccone G, Berghella V. Suture type for hysterotomy closure: a systematic review and meta-analysis of randomized controlled trials. *Am J Obstet Gynecol MFM.* 2022 Nov;4(6):100726. 6. Peleg D, Ahmad RS, Warsaw SL, Marcus-Braun N, Sciaky-Tamir Y, Ben Shachar I. A randomized clinical trial of knotless barbed suture vs conventional suture for closure of the uterine incision at cesarean delivery. *Am J Obstet Gynecol.* 2018 Mar;218(3):343.e1-343.e7. 7. Rettenmaier MA, Abaid LN, Brown JV, Mendivil AA, Lopez KL, Goldstein BH. Dramatically reduced incidence of vaginal cuff dehiscence in gynecologic patients undergoing endoscopic closure with barbed sutures: A retrospective cohort study. *International Journal of Surgery.* 2015 Jul;19:27–30. 8. Siedhoff MT, Yunker AC, Steege JF. Decreased incidence of vaginal cuff dehiscence after laparoscopic closure with bidirectional barbed suture. *J Minim Invasive Gynecol.* 2011;18(2):218–23. 9. Kim JH, Byun SW, Song JY, Kim YH, Lee HJ, Park TC, et al. Barbed versus conventional 2-layer continuous running sutures for laparoscopic vaginal cuff closure. *Medicine (Baltimore).* 2016 Sep;95(39):e4981. 10. Barbosa PA, Vilhoescusa M, Andres MP, Fernandes LFC, Abrão MS. How to minimize bleeding in laparoscopic myomectomy. *Curr Opin Obstet Gynecol.* 2021 Aug 1;33(4):255–61. 11. Angioli R, Plotti F, Montero R, Damiani P, Terranova C, Ortoni I, et al. A new type of absorbable barbed suture for use in laparoscopic myomectomy. *Int J Gynecol Obstet.* 2012 Jun;117(3):220–3. 12. Alessandri F, Remorgida V, Venturini PL, Ferrero S. Unidirectional barbed suture versus continuous suture with intracorporeal knots in laparoscopic myomectomy: a randomized study. *J Minim Invasive Gynecol.* 2010;17(6):725–9. 13. Gardella B, Dominoni M, Iacobone AD, De Silvestri A, Tinelli C, Bogliolo S, et al. What Is the Role of Barbed Suture in Laparoscopic Myomectomy? A Meta-Analysis and Pregnancy Outcome Evaluation. *Gynecol Obstet Invest.* 2018;83(6):521–32. 14. Tan-Kim J, Nager CW, Grimes CL, Luber KM, Lukacz ES, Brown HW, et al. A randomized trial of vaginal mesh attachment techniques for minimally invasive sacrocolpopexy. *Int Urogynecol J.* 2015 May;26(5):649–56. 15. Borahay MA, Oge T, Walsh TM, Patel PR, Rodriguez AM, Kilic GS. Outcomes of robotic sacrocolpopexy using barbed delayed absorbable sutures. *J Minim Invasive Gynecol.* 2014;21(3):412–6. 16. Montemurro P, Avvedimento S, Hedén P, Quattrini Li A. A Four-Layer Wound Closure Technique with Barbed Sutures for Stable Reset of the Inframammary Fold in Breast Augmentation. *Aesthet Surg J.* 2016 Sep;36(8):966–71. 17. Tomita K, Taminato M, Nomori M, Maeda D, Seike S, Tashima H, et al. A Simple and Scarless Method for Inframammary Fold Correction Using a Barbed Suture. *Plastic and Reconstructive Surgery - Global Open.* 2020 Jun;8(6):e2930. 18. Abu Qasida A, Delay S, Guerid S, Gisquet H, Frobert P, Delay E. Latissimus dorsi seroma prevention with running quilting suture using barbed suture. *Annales de Chirurgie Plastique Esthétique.* 2023 Jul;50294126023000729. 19. Liang DG, Dusseldorp JR, van Schalkwyk C, Hariswamy S, Wood S, Rose V, et al. Running barbed suture quilting reduces abdominal drainage in perforator-based breast reconstruction. *J Plast Reconstr Aesthet Surg.* 2016 Jan;69(1):42–7.

Quill® barbed sutures are indicated for soft tissue approximation. Absorbable barbed sutures shall be used where the use of absorbable suture is appropriate and non-absorbable barbed sutures are excluded from closure of the epidermis. Barbed sutures are not intended to be used by tying surgical knots. Avoid crushing or crimping the suture material with surgical instruments, such as needle holders and forceps. To lock the Quill® device in place, it is recommended to employ a few backstitches and cut the remaining suture flush with the tissue to complete. If approximating the subcuticular layer, exit laterally and cut flush with the skin. To avoid small bowel obstruction, care should be taken to not leave barbed suture ends adjacent to the peritoneum in extra peritoneal tissue closure. As with all surgical sutures, adverse effects may include wound dehiscence, failure to provide adequate wound support, infection, minimal acute inflammatory tissue reaction at the wound site amongst others. The safety and effectiveness of Quill® device has not been established for use in several closures, including fascia, gastrointestinal anastomoses and CV tissue amongst others, therefore this product should not be used for these purposes. For complete indications, contraindications, warnings, precautions, and adverse reactions, refer to the instructions for use (IFU).



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