

Lyostypt[®]

Time to hemostasis



Biosurgicals

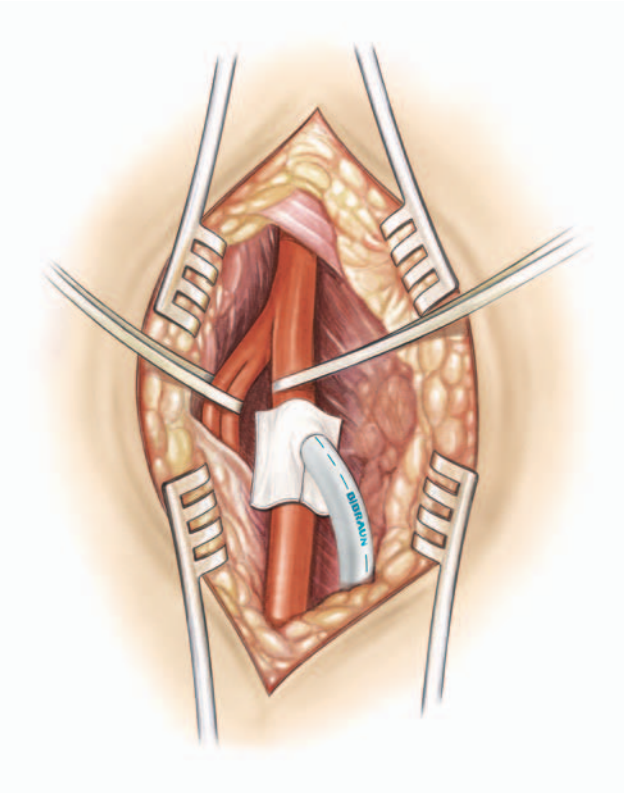
Lyostypt[®]

Time to hemostasis

Adaptable

Lyostypt[®] is used for topical hemostasis of capillary bleeding, oozing hemorrhages and as a supportive measure for other hemostasis techniques.

In hemodialysis, Lyostypt[®] is also used for local hemostasis at the puncture site.



What is needed

- ▶ Efficient hemostasis
- ▶ Can be combined with fibrin glue¹
- ▶ Can be combined with antibiotics²
- ▶ Only small amount needed / cost efficient
- ▶ Absorbed within 3 weeks
- ▶ Excellent biocompatibility

¹ Uranüs S et al. *Laparoskopische Eingriffe an der Milz* Chir Gastroenterol. 20 (2004) 1-8.

² Wachol-Drewek Z et al. *Comparative investigation of drug delivery of collagen implants saturated in antibiotic solutions and a sponge containing Gentamicin*, Biomaterials. 17 (1996) 1733-8.

Lyostypt[®]

Collagen: Proven Efficacy

COBBANA Trial

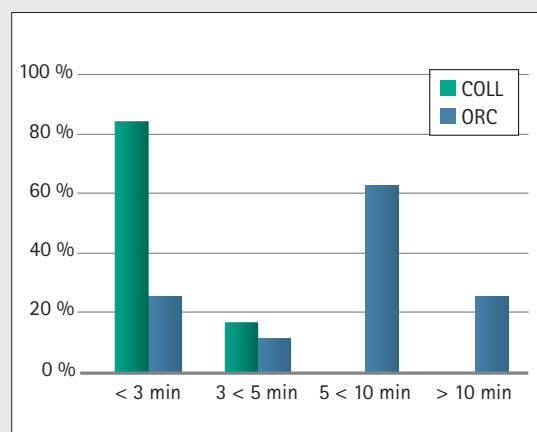
COBBANA: Control of bleeding in arterial bypass anastomosis³

- ▶ Prospective, randomized clinical trial
- ▶ Comparison of fibrillar collagen (Lyostypt[®]) versus oxidized regenerated cellulose (Surgicel[®]).³
- ▶ Hemostatic effect and handling properties were rated in suture hole bleeding of peripheral arterial bypass anastomosis using PTFE graft prosthesis.
- ▶ N = 64 anastomoses (32 Lyostypt[®], 32 Surgicel[®]).

Faster hemostasis

Bleeding time of the anastomoses

- ▶ Fibrillar collagen showed significantly faster hemostasis (124 ± 67 sec) compared to oxidized regenerated cellulose (416 ± 226 sec) in suture hole bleedings of arterial bypass anastomosis.⁴



COLL: Collagen based device (Lyostypt[®])
ORC: Oxidized regenerated cellulose (Surgicel[®])

Fibrillar collagen stopped suture hole bleeding of the anastomoses in less than 3 minutes in over 80 % of cases. Oxidized cellulose needed more than 5 minutes to stop suture hole bleeding in most of the anastomoses performed.

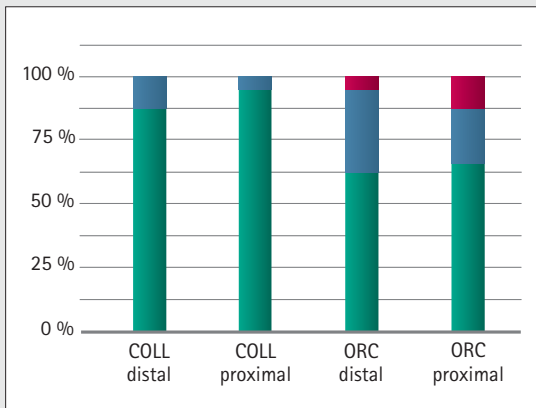
³ Baumann P et al. A randomized controlled, prospective trial to evaluate the haemostatic effect of Lyostypt versus Surgicel[®] in arterial bypass anastomosis: 'Cobbana' Trial. *Trials*. 10 (2009) 91.

⁴ Qerimi B, Baumann P, Hüsing J, Knaebel HP, Schumacher H. Collagen hemostat significantly reduces time to hemostasis compared to cellulose. COBBANA, a single-center randomized trial. *Am J Surg*. 2012; in print.

Better performance

Intraoperative efficacy rating

- ▶ Fibrillar collagen showed better adherence to the tissue and handling properties compared to oxidized regenerated cellulose in suture hole bleeding of arterial bypass anastomoses.⁴
- ▶ Less fibrillar collagen devices were needed to achieve hemostasis, demonstrating its major cost-effectiveness.⁴



- Easy placement, repositioning needed and not possible
- Easy placement, repositioning needed and possible
- Easy placement, no repositioning needed

COLL: Collagen based device (Lyostypt®)

ORC: Oxidized regenerated cellulose (Surgicel®)

Fibrillar collagen did not need to be repositioned in more than 80 % of the anastomoses performed. In cases where needed, collagen could be easily repositioned in all cases.⁴

Collagen advantages

Collagen is an excellent option due to its well-known advantages⁵:







- ▶ Fast induction of hemostasis, low tissue reaction and fast absorption.⁶
- ▶ An excellent hemostatic agent in microvascular surgery.⁵
- ▶ Faster hemostasis than oxidized cellulose.⁴
- ▶ Collagen is absorbed faster than oxidized cellulose.⁵
- ▶ Better adhesion to tissue and surgical handling than oxidized cellulose.⁴
- ▶ Lower amount of material needed to stop bleeding in comparison to oxidized cellulose.⁴

⁵ Schonauer C et al. *The use of local agents: bone wax, gelatin, collagen, oxidized cellulose* Eur Spine J. 13 (2004) 89-96.

⁶ Alpaslan C et al. *Tissue reaction to three subcutaneously implanted local hemostatic agents*. Br J Oral Maxillofac 35 (1977) 129-132.

Ordering Information



	Sizes	Art. No.	Contents
	3 cm x 5 cm	1069128	12 pieces
	5 cm x 8 cm	1069152	6 pieces
	5 cm x 8 cm	1069020	12 pieces
	10 cm x 12 cm	1069209	4 pieces
	10 cm x 12 cm	1069039	8 pieces
	5 cm x 30 cm	1069306	4 pieces



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