

Effective Protection with Strong Haemostyptic Action

A haemostatic collagen sponge that contains gentamicin sulphate to protect the implant from infection.

The greatest possible production safety is guaranteed by the use of collagen of equine origin.<sup>5</sup>

Collagen is completely absorbable.<sup>8</sup> This means that there is no need for a second operation such as is required with non-resorbable materials. The naturally-structured collagen fibrils activate clotting like endogenous collagen.<sup>8</sup>



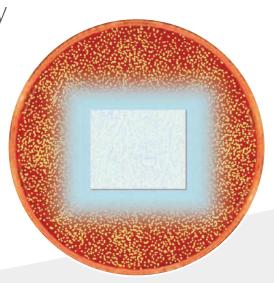
- Following the contact of blood with GENTA-COLL® resorb, platelets aggregate on the collagen fibres and trigger the coagulation reaction.
- Once inserted, GENTA-COLL® resorb fills the defect and thus forms a template for tissue reaction, actively promoting the migration and adhesion of actively-dividing cells.
- GENTA-COLL® resorb lightly inserted into the defect prevents haematoma formation and thus reduces the risk of bacterial colonisation of the wound.

#### GENTA-COLL® resorb

Can also be used in septic surgery thanks to its antibiotic content.

Gentamicin sulphate is an aminoglycoside and has a broad spectrum of antibacterial activity.<sup>4</sup>

For certain antibiotics (e.g. aminoglycosides), the highest possible serum concentration determines the extent of the bactericidal action and the duration of the postantibiotic effects.



Is recommended for haemostasis.

"Experience shows that wound healing processes are particularly favourable in precisely those areas where there is controlled and perfect haemostasis."

(Ascherl, Tirschenreuth)

- In clean and contaminated wounds
- In septic surgery, e.g. revision procedures
- Where there is a high risk of infection



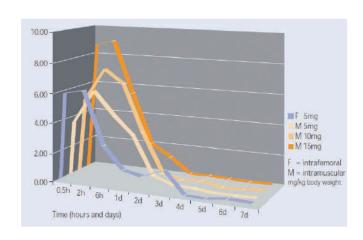
SEM image of a collagen sponge

"The often-mentioned opinion that prolonged antibiotic levels are necessary in septic bone surgery is in contrast to generally recognised experience." 9

It is scientifically accepted that prolonged high active substance concentrations of aminoglycosides are not to be recommended and also encourage the development of resistant bacteria.

Local application means that there are initially high concentrations at the site of implantation but no toxic serum concentrations throughout the body.

A study has shown that this typical effect is relatively independent of the implant surroundings or the dose applied.



According to Scherer <sup>6</sup>

Each sponge is individually packed and sterile and can be rolled, folded loosely or cut

into smaller pieces.

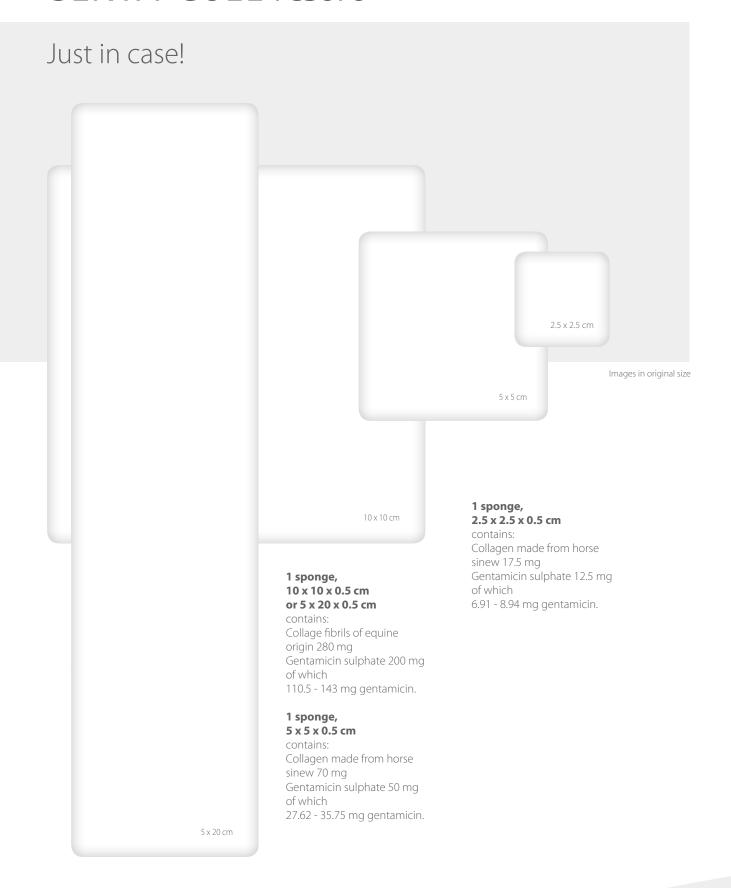


- Haemostatic
- Resorbable
- Antibiotic protection
- Malleable
- Ideal Carrier for fibrin glue
- Highly absorbant
- Stable structure and elastic in the moist milieu of wounds

#### References

- 1. Craig W.A., Leggett J., Totsuka K., Vogelman B. (1988): Key pharmacokinetic parameters of antibiotic efficacy in experimental animal infections.

  J. Drug Dev., 1 (53): 7 15
- Grimm H. (1989): Bakteriologische und pharmakokinetische Aspekte der topischen Antibiotikaanwendung. Kollagen als Wirkstoffträger [Bacteriological and pharmacokinetic aspects of topical antibiotic application. Collagen as a drug carrier.] Einsatzmöglichkeiten in der Chirurgie [Possible applications in surgery]. Ed.Stemberger A., Ascherl R., Lechner F., Blümel G., Schattauer Verlag, Stuttgart New York, 33-37
- 3. Mendel V. (Hrsg.), Beyer M. (co-auther) (1989): Knochen- und Weichteilinfektionen. [Bone and soft tissue infections]. Perimed textbook publishing company ISBN 3-88429-341-9
- 4. Moore R.D., Lietman P.S., Smith C.R. (1987): Clinical response to aminoglycoside therapy: Importance of the ratio of peak concentration to minimal inhibitory concentration. The Journal of Infectious Diseases 155 (1): 93 99
- 5. Ph. Eur. Supplement to the European Pharmacopoeia Supplement 2000 (2000): 5.2.8 Minimization of the risk of the transmission of transmissible spongiform encephalopathies in traditional medicines and health supplements. Ph.Eur.- Supplement 2000
- 6. Scherer M.A. (1996) Munich: Resorbierbare Arzneistoffträger aus Kollagen mit Gentamicin Vergleich der Bioverfügbarkeit und der histologischen Reaktion im Tierversuch. Unveröffentlicht
- Stemberger A., Fritsche H., et al (1978): Fibrinogenkonzentrate und Kollagenschwämme zur Gewebeklebung [Fibrinogen and Collagen Sponges for Tissue Sealing]. Med. Welt 29 (17): 720 - 724
- 8. Stemberger A., Lehner S., Odar J. (1999): Biodegradable surgical wound dressings Stability, elasticity and tear resistance as markers of quality. Authorized translation from Ellipse 15 (4): 101 105
- $9. \ \ Grimm\ H.\ (1989): Local\ antibacterial\ the rapy\ in\ traumatology?\ Forum\ Traumatologie\ Osteitis-Therapie,\ Essex\ Pharma\ GmbH$
- 10. Ruszczak, Friess / Advanced Drug Delivery Reviews (2003) Collagen as a carrier for on-site delivery of antibacterial drugs (S3 -16)/ Innocoll GmbH Saal Germany
- 11. Schimmer, Özkur, Sinha, Hain, Gorski, Hager, Ley Gentamicin Collagen sponge reduces sternal wound complications after heart surgery: A controlled prospectively, randomized, double blind study, Amercan Ass. for Thoracic Surgery (2012) 194-200
- 12. Chang, Svinivasa, MacCormick, Hill, FRACS Metanalyse von 15 klinischen Studien, Anals of Surgery 2013 Gentamicin Collagen Implants to reduce Surgical Site Infection 732-734
- 13. Kowalewski, Pawliszak, Zaborowska, Navarese, Szwed, Kowalkowska, J.Kowalewski, Borkowska, Anisimowicz, Gentamicin-collagen sponge reduces the risk of sternal wound infections after heart surgery: Meta-analysis







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