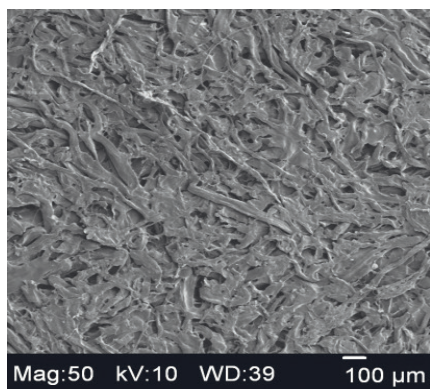




RESODURA[®] *matrix suturable*

Collagen Dura Membrane

RESODURA[®]*matrix suturable* is a resorbable collagen dura repair membrane designed with high mechanical strength. RESODURA[®]*matrix suturable* is derived from highly purified intact bovine dermis. It is indicated for use as a suturable dura membrane for the repair of the dura mater and requires only a short hydration with sterile saline prior to implantation. It can be cut in either the dry or hydrated state, and can be placed with either side toward the brain. RESODURA[®]*matrix suturable* has a thickness similar to that of native dura and a high suture retention strength (20.40 ± 1.54 N) that enables it to be sutured to surrounding tissue with minimal risk of membrane tear or detachment.



Scanning Electron Micrograph 50x,
Membrane Surface



- Highly purified collagen
- Strong, yet flexible
- High suture retention strength
- Leak resistant material for protection against cerebrospinal fluid leakage¹
- Controlled resorption for effective dural repair
- Excellent handling characteristics
- Quick hydration time

¹Data on file with Collagen matrix.

Collagen Dura Membrane

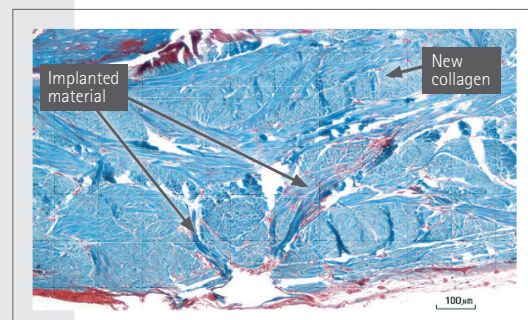
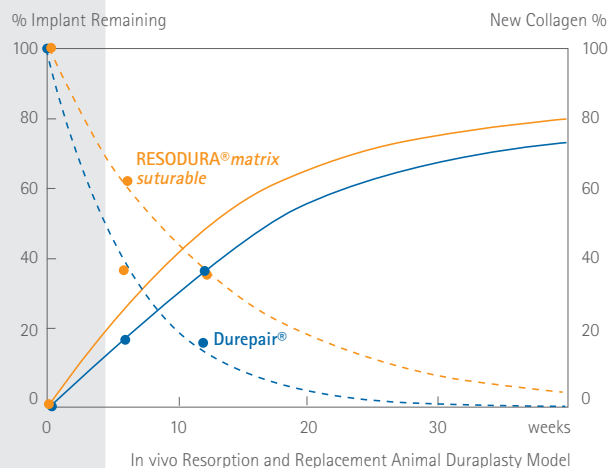
In vivo Evaluation of RESODURA®*matrix suturable* Collagen Dura Membrane as a Dura Membrane in a Rabbit Duraplasty Model*

RESODURA®*matrix suturable* Collagen Dura Membrane and Durepair® (Medtronic) were implanted in twenty-six New Zealand White strain rabbits. A single 10 x 10 mm defect was created over the midline in the skull of each rabbit. The bone flap covering the defect was elevated and placed in saline. A critical sized defect, approximately 8 x 8 mm, was created in the dura. The dural defect was then covered by either the RESODURA®*matrix suturable* Dura Membrane or Durepair®. Both dura membranes were sutured in place. The bone flap was then placed, and the surgical site was sutured closed with non-resorbable suture.

This study demonstrated the safety and efficacy of RESODURA®*matrix suturable* Dura Membrane as a collagen dura substitute membrane in a rabbit duraplasty model compared to Durepair®. Efficacy was demonstrated macroscopically, histologically, and microscopically after 6 and 12 weeks. All of the rabbits survived the procedure and gained weight over the succeeding 12 weeks after local implantation of the implants onto a dura incision. The application of the RESODURA®*matrix suturable* Dura Membrane and the application of the Durepair® appeared to prevent CSF leakage. Microscopically, both the RESODURA®*matrix suturable* Dura Membrane and Durepair® were resorbed over time and aided in new collagen formation. As a first order approximation, the total resorption time is approximately 9 months for the RESODURA®*matrix suturable* Dura Membrane. Overall, it can be concluded that RESODURA®*matrix suturable* is a safe and effective collagen dura membrane in this duraplasty model.

Durepair® is a registered trademark of TEI Biosciences, Inc.

* Lee N, Yuen D, and Li ST, Two Novel Collagen Based Dura Repair Membranes: Solutions for the Multifaceted Needs in Duraplasty Part II: In Vivo Rabbit Duraplasty Studies (abstract). In: 10th World Biomaterials Congress, 2016 May, Montreal, Canada. Abstract nr 3315



12 week RESODURA®*matrix suturable* Dura Membrane implant site at 100x magnification – Trichrome stain.

REF	SIZE	PACKAGE CONTENTS
DUMS2525	2.5 x 2.5 cm	1 membrane
DUMS2575	2.5 x 7.5 cm	1 membrane
DUMS0505	5 x 5 cm	1 membrane
DUMS7575	7.5 x 7.5 cm	1 membrane
DUMS10125	10 x 12.5 cm	1 membrane



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