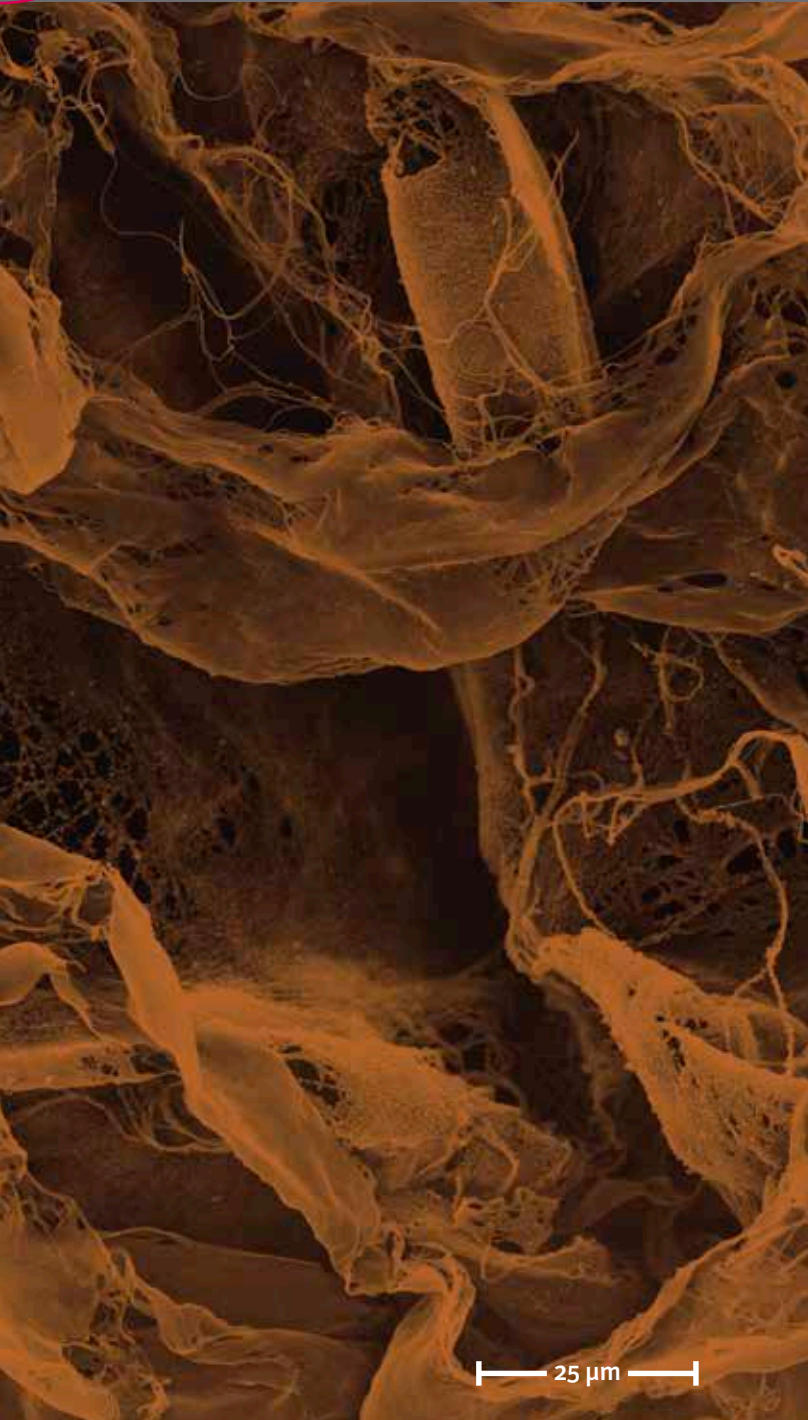


Preimplantation

DuraGen's open pore structure and Ultra Pure Collagen™ create an optimized environment for platelet aggregation and rapid fibrin clot formation to help prevent CSF leaks.¹²



DuraGen® Dural Regeneration Matrix

Proven in Over 1400 Patients and 10 Clinical Studies¹⁻¹⁰

Author	Procedure Type	DuraGen Patients Studied
Danish et al ¹	Posterior Fossa Decompression	56
Harvey et al ²	Endoscopic Transnasal Craniotomy	30
Horaczek et al ³	Decompressive Hemicraniectomy, Cranioplasty	18
Lee et al ⁴	Intracranial Meningioma Resection	237
Litvack et al ⁵	Frontal Craniotomy, Suboccipital/Retrosigmoid Craniotomy, Temporal Craniotomy	320
Narotam et al ⁶	Spinal Surgery	110
Narotam et al ⁷	Posterior Fossa Craniectomy, Lumbar Laminectomy, Supratentorial Craniotomy	79
Narotam et al ⁸	Posterior Fossa Surgery	52
Sade et al ⁹	Intracranial Meningioma Resection	439
Stendel et al ¹⁰	Cranial and Spinal Procedures	112
TOTAL:		1453

References: 1. Danish SF, Samdani A, Hanna A, Storm P, Sutton L. Experience with acellular human dura and bovine collagen matrix for duraplasty after posterior fossa decompression for Chiari malformations. *J Neurosurg.* 2006;104(suppl 1):16-20. 2. Harvey RJ, Nogueira JF, Schlosser RJ, Patel SJ, Vellutini E, Stamm AC. Closure of large skull base defects after endoscopic transnasal craniotomy. Clinical article. *J Neurosurg.* 2009;111(2):371-379. 3. Horaczek JA, Zierski J, Graewe A. Collagen matrix in decompressive hemicraniectomy. *Neurosurgery.* 2008;63(1)(suppl 1):ONS176-181. 4. Lee JH, Sade B. Dural reconstruction in meningioma surgery. In: Lee JH, ed. *Meningiomas: Diagnosis, Treatment and Outcome.* 1st ed. London, UK: Springer-Verlag London Ltd; 2009:619-624. 5. Litvack ZN, West GA, Delashaw JB, Burchiel KJ, Anderson VC. Dural augmentation: part I—evaluation of collagen matrix allografts for dural defect after craniotomy. *Neurosurgery.* 2009;65(5):890-897. 6. Narotam PK, José S, Nathoo N, Taylon C, Vora Y. Collagen matrix (DuraGen) in dural repair: analysis of a new modified technique. *Spine (Phila Pa 1976).* 2004;29(24):2861-2867. 7. Narotam PK, Reddy K, Fewer D, Qiao F, Nathoo N. Collagen matrix duraplasty for cranial and spinal surgery: a clinical and imaging study. *J Neurosurg.* 2007;106(1):45-51. 8. Narotam PK, Qiao F, Nathoo N. Collagen matrix duraplasty for posterior fossa surgery: evaluation of surgical technique in 52 adult patients. Clinical article. *J Neurosurg.* 2009;111(2):380-386. 9. Sade B, Oya S, Lee JH. Non-watertight dural reconstruction in meningioma surgery: results in 439 consecutive patients and a review of the literature. Clinical article. *J Neurosurg.* 2011;114(3):714-718. 10. Stendel R, Danne M, Fiss I, et al. Efficacy and safety of a collagen matrix for cranial and spinal dural reconstruction using different fixation techniques. *J Neurosurg.* 2008;109(2):215-221. 11. Clinical department meta-analysis of articles. 12. Data on file. Integra LifeSciences, Plainsboro, NJ, USA.

Disclaimer: In vitro studies are not indicative of clinical outcomes.

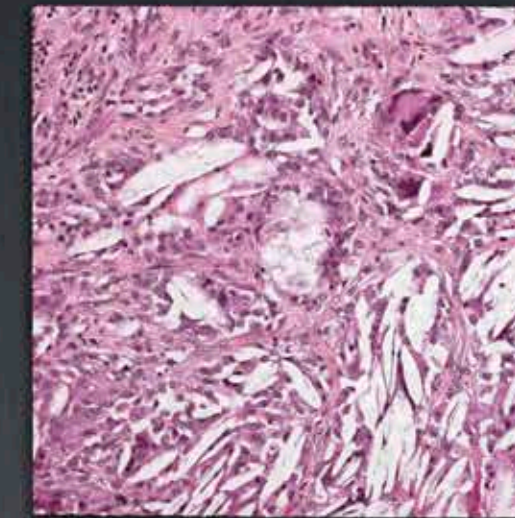
DuraGen Dural Regeneration Matrix is indicated as a dura substitute for the repair of dura mater. Adverse events: Possible complications can occur with any neurological procedure and include CSF leaks, infection, delayed hemorrhage, and adhesion barrier formation. Please read the package insert for complete instructions, contraindications, and precautions.

For more information or to place an order, please contact:

USA 800-654-2873 ■ 888-980-7742 fax ■ International +1 609-936-5400 ■ +1 609-750-4259 fax ■ integrallife.com

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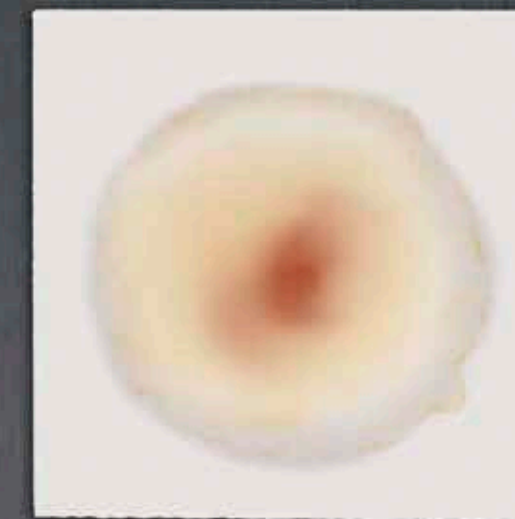
You'll never look at dural grafts the same way again



Foreign body reactions



Infections



CSF leaks



DuraGen

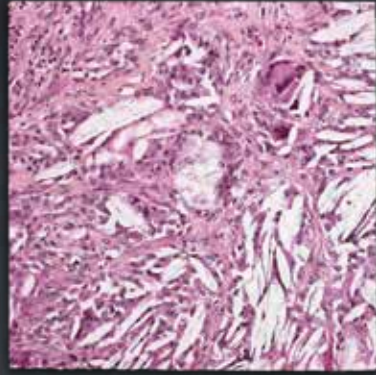
DuraGen® is backed by the strength of 10 clinical studies with over 1400 patients.¹⁻¹⁰

Clinical studies cover foreign body reactions, infections, and CSF leaks.

CSF = cerebrospinal fluid.

Two Million Implants and Counting¹⁻¹⁰

Summary outcome statistics derived from 10 clinical studies demonstrate



0% Foreign Body Reaction¹¹

- Ultra Pure Collagen^{TM12}
- No confirmed reports of foreign body reaction or rejection in over 30 years of clinical use¹²



1.9% Infection Rate¹¹

- Million-fold reduction in viral activity in collagen achieved via purification process¹²



2.1% CSF Leak Rate¹¹

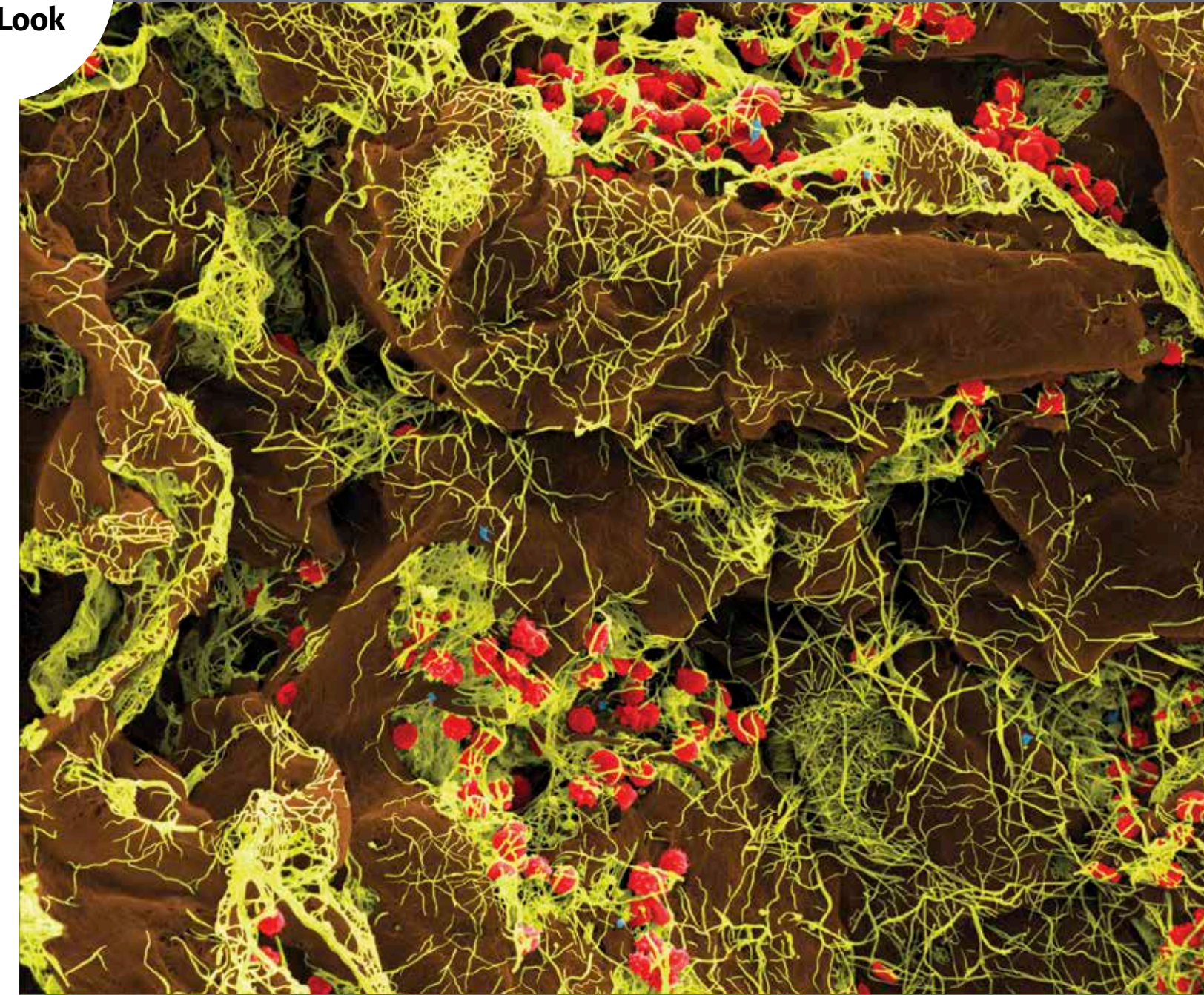
- Rapidly promotes fibrin clot formation, creating a watertight barrier and binding implanted matrix to the dura¹²

Integra's DuraGen[®] products have more published human clinical data than any other collagen-based dural grafts¹²

Within 10 minutes of interacting with blood

DuraGen Plus promotes rapid platelet aggregation, and an extensive fibrin network forms to provide a watertight seal.¹²

Take a Closer Look



KEY ■ Collagen matrix ■ Red blood cell ■ Platelet ■ Fibrin

Image is representative of study data on file.¹²

— 25 μm —