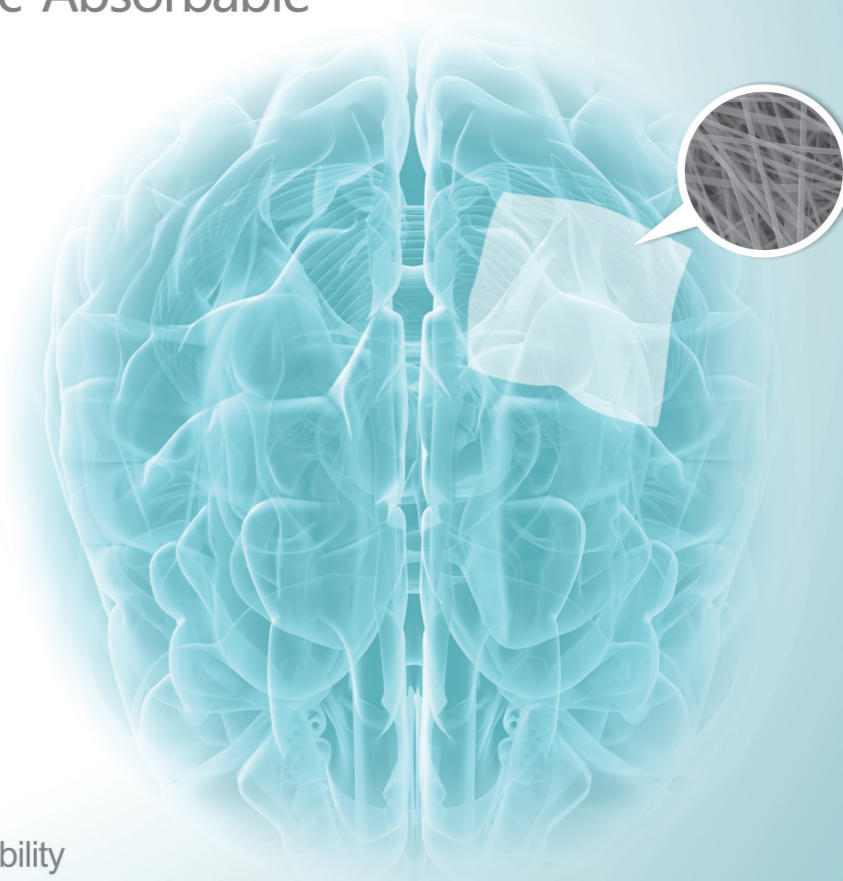


## Specifications

Shape	Model	Dimensions (±5mm)		Thickness	
Square/ rectangle	RDS-1	15mm × 20mm		0.1~0.5mm	
	RDS-2	20mm × 30mm			
	RDS-3	30mm × 40mm			
	RDS-4	40mm × 60mm			
	RDS-5	60mm × 60mm			
	RDS-6	60mm × 80mm			
	RDS-7	60mm × 140mm			
	RDS-8	80mm × 80mm			
	RDS-9	80mm × 120mm			
	RDS-10	100mm × 150mm			
	RDS-11	150mm × 150mm			
	RDS-12	25mm × 25mm (1inch × 1inch)			
	RDS-13	25mm × 75mm (1inch × 3inch)			
	RDS-14	50mm × 50mm (2inch × 2inch)			
	RDS-15	75mm × 75mm (3inch × 3inch)			
	RDS-16	100mm × 125mm (4inch × 5inch)			
	RDS-1205	25mm × 25mm (1inch × 1inch)			
	RDS-1305	25mm × 75mm (1inch × 3inch)			
RDS-1405	50mm × 50mm (2inch × 2inch)				
RDS-1505	75mm × 75mm (3inch × 3inch)				
RDS-17	30mm × 60mm				
RDS-18	30mm × 90mm				
Shape	Model	Specifications		Thickness	
Oval	RDS-19	a (±5mm)	b (±5mm)	0.1~0.5mm	
	RDS-20	75mm	45mm		
		100mm	85mm		
Shape	Model	Specifications			Thickness
Fan-shaped	RDS-21	a (±5mm)	c (±5mm)	b (±5mm)	0.1~0.5mm
		105mm	35mm	67mm	

# ReDura™

Biomimetic-Synthetic-Absorbable  
Dural Substitute



- Rapid Repair & Regeneration
- Long Term Safety
- Excellent Handling & Conformability
- High Strength & No-swelling
- Onlay & Suture

## REFERENCES

- Zhidong Shi, Tao Xu, Yuyu Yuan, Kunxue Deng, et al. New Absorbable Synthetic Substitute With Biomimetic Design for Dural Tissue Repair. *Artif Organs*. 2015 Nov 2. doi: 10.1111/aor.12568.
- Novel Regenerative Nanofibrous Bio-device for Dural Defect Repair. Congress of Neurological Surgeons Annual Meeting, Washing DC, USA, 2011.
- In-vitro and clinical study on a novel synthetic absorbable biomimetic dural substitute. European Society for Pediatric Neurosurgery(ESPN) Congress, Rome, Italy, 2014.
- Electrospun Fibrous Mats with High Porosity as Potential Scaffolds for Skin Tissue Engineering. *Biomacromolecules*, 2008,9(7):1795-1801.
- Development of Novel Nanofibrous Dural Substitute for Dural Repair. The 14th World Federation of Neurological Societies Interim Meeting, Pernambuco, Brazil, 2011.
- Francesco Zenga , et al. Nanofibrous Synthetic Dural Patch for Skull Base Defects: Preliminary Experience for Reconstruction after Extended Endonasal Approaches. *Journal of Neurological Surgery Reports* 2016;77:e50–e55.

**Medprin Biotech GmbH**  
Address: Gutleutstraße 163-167, 60327 Frankfurt am Main, Germany  
Tel: +49-69-580059970  
Fax: +49-69-580059971

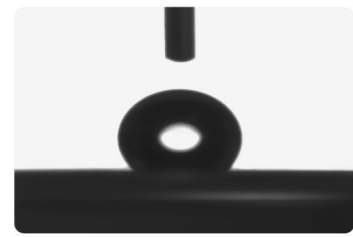
**Medprin Biotech LLC.**  
Address: 14241 East Firestone Blvd, Suite 400, La Mirada, CA90638, USA  
Tel: +1-562-2392150  
Fax: +1-562-7249828



**ReDura™** is manufactured with FDA approved degradable material poly-L-lactic acid which has been extensively tested to prove the biocompatibility and non toxicity. The product exhibits excellent prevention of CSF leakage and tissue adhesion, regenerating the dural defect in the process. ReDura™ is fully degradable and absorbable 1 year post implantation, leaving no foreign body in-situ and is replaced by regenerated dura tissue. ReDura™ has been widely used in clinical practice and demonstrates outstanding efficacy and safety for the repair of the dural defect.

### CSF Impermeability

ReDura™ is hydrophobic with more than 90 contact angle which acts as a watertight barrier for the prevention of cerebrospinal fluid (CSF) leakage. It attains a favourable dural closure. Preventing common complications associated with CSF leakage.



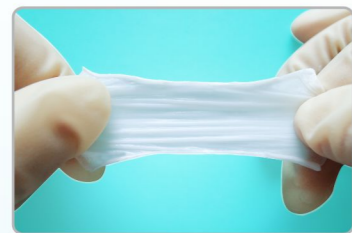
ReDura™ of > 90° contact angle with hydrophobic surface property



No liquid leakage using ReDura™

### High Strength and No-swelling

Redura™ achieves excellent tensile strength, strong enough for positioning or repositioning of the product during operative handling. The biomaterial does not swell and can be easily unfolded after hydration without tearing.



Excellent Strength of ReDura™



Before hydration (0.215mm)



No-swelling after hydration (0.205mm)

### Excellent Conformity

ReDura™ is flexible and conforms to the contours of the brain very well after hydration, without foreign body sensation to the patient.



Good conformity of ReDura™



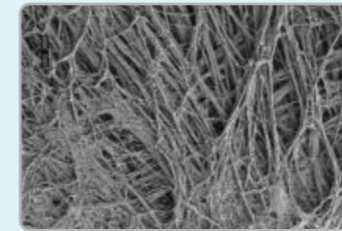
Native dura



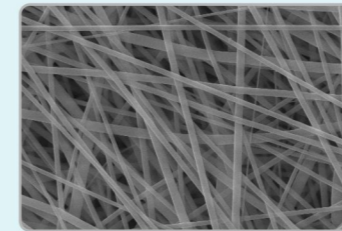
ReDura™ resembles to the native dura

### Rapid Repair and Regeneration

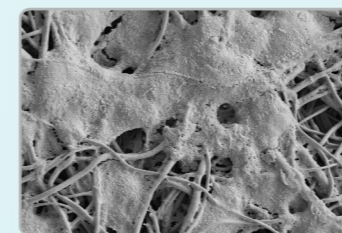
The biomimetic structure of ReDura™ resembles to the microstructure of native dural matrix, providing an appropriate environment for dural cell growth, proliferation and migration. With such a unique feature, ReDura™ is able to repair and regenerate defective dura efficiently.



Microstructure of native dura



Microstructure of ReDura™



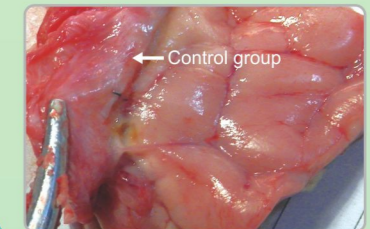
Cells tightly adhere to the nanofibers of Redura™

### Superior Anti-adhesion Ability

The unique material property of ReDura™ endows the product favourable anti-adhesion ability to the surrounding tissues, which has been proved by low adhesion risk in tens of thousands of clinical application cases.



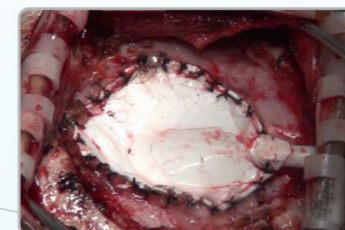
Redura™: smooth surface of brain tissue with no adhesion to implanted material.



Control group: adhesion of native dura to brain tissue.

### Flexible Surgical Application

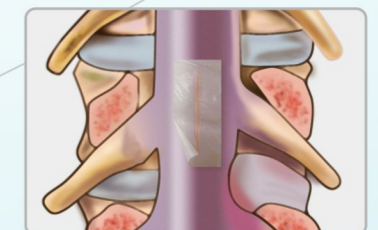
With the advantage of thinness, softness and high strength, Redura™ is easy and simple to apply with flexibility.



ReDura™ (4x6cm) was sutured onto the dural defect.



ReDura™ (4x6cm) was applied as onlay procedure for the dural defect.



ReDura™ was applied in the repair of spinal dural defect.