

CranioGrip

A dural patch with grip texture to secure closure

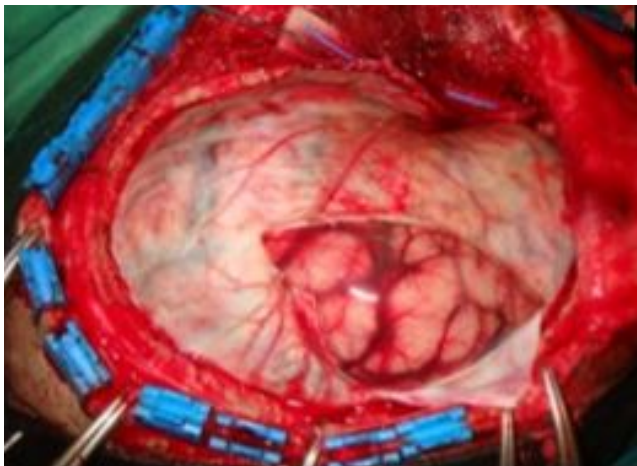


PENTA PLEXA
NEUROLOGY



CLEMSON
BIOENGINEERING

145,000 Craniotomies per year in the US alone



After a craniotomy, a patient's dura mater must be reclosed with a **watertight seal**



CranioGrip offers **a closure patients can trust** with reduced leakage complications & reduced hospital time

Offers **surgeons a fast & simple method** even for the most difficult closures, that doesn't require tedious sutures, complex staples or extra sealant

A layer of 25,000 + protrusions / in² ...

10x smaller than the tip of a needle

Designed to embed in collagen fibers of the patient's dura

Increase contact surface area by 39% → Increased adhesion

... On a nonwoven polymer matrix base

PLA material proven to encourage dural tissue ingrowth while decreasing adhesions to brain

Degrades over time leaving seamless closure

How it's Used

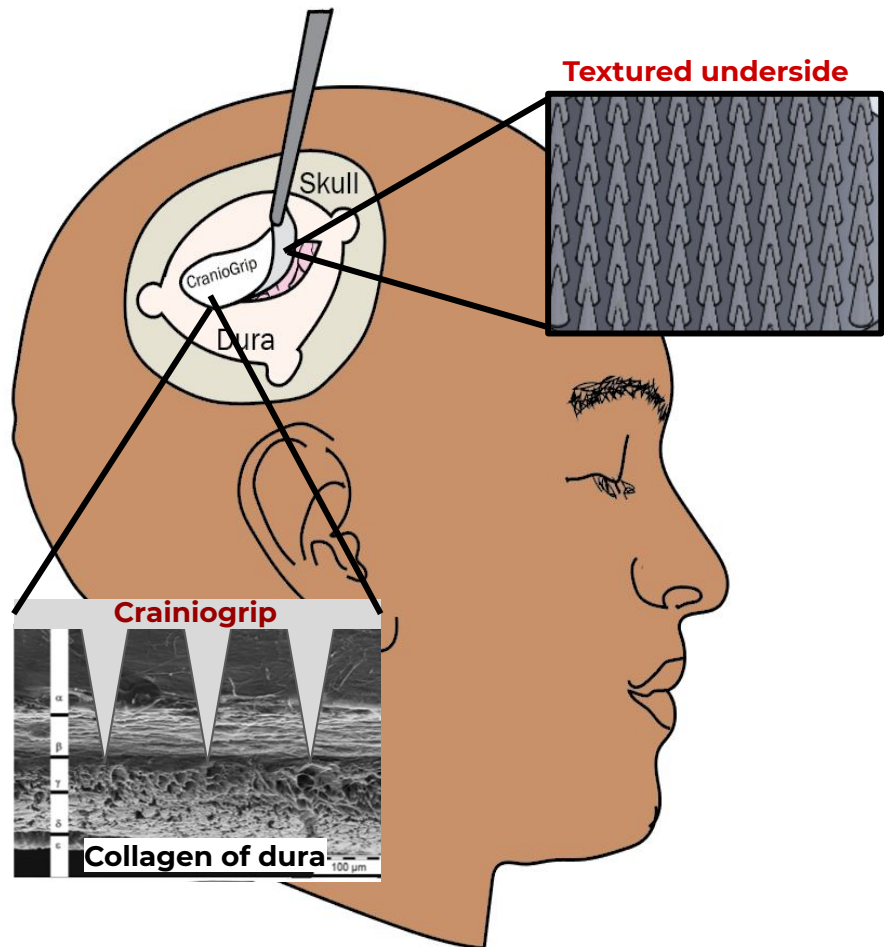
Surgeon chooses what size patch to apply based on incision size

A second CranioGrip patch can be used as barrier between protrusions & exposed brain when there is a large defect

Forceps are used to apply CranioGrip over incision, with the protrusion side placed downward onto the dura

Tension and light pressure will cause protrusions to embed in collagen fibers of the dura

Process complete with CranioGrip all-in-one solution !



"A versatile method to lock dural closures in place is revolutionary"

- Dr. Christopher Troup, Pediatric Neurosurgeon at Prisma Health

Prototypes made in collaboration with...



Contact Penta Plexa

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Market Potential

Soft Tissue Repair

\$16.7B in 2017

Sutures, Staples, Sealants

\$7B in 2012, 5.7% expected growth (5 years)⁶

Target: Dural Repair

