



# Improved Craniotome to Prevent Dural Tear

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## Minimizes Risk of Dural Tear During Craniotomy

A new craniotome design helps prevent dural tears during craniotomy procedures. The device uses high pressure liquid (e.g., sterile saline solution) to separate the dura from the cranium ahead of the craniotome in order to minimize the risk of the dura snagging on the dura guard. The concept could be marketed as either an entirely new craniotome design or an attachment to existing craniotomes (similar to the way a dura guard is an attachment).

## Separates Dura from Cranium During Surgery

Dural tears occur in approximately 20-30% of craniotomy procedures. While high pressure water has previously been used to separate dura from skin after a decompressive craniotomy, this new device is unique in that it uses high pressure liquid to separate the dura from the cranium during the craniotomy procedure. The invention incorporates the waterjet directly into the dura guard of a craniotome tool.

### **BENEFITS AND FEATURES:**

- Minimizes risk of dural tear during a craniotomy procedure
- High pressure liquid separate dura from cranium during surgery
- Reusable surgical tool
- Detachable dura guard component
- Entirely new craniotome design
- Attaches to existing craniotomes

### **APPLICATIONS:**

- Craniotomies
- Brain surgery

**Phase of Development** - Prototype development, bench testing

## Researchers

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