The World’s First Irrigating Intracranial Drainage System
IRRAflow’s unique design addresses the shortcomings of traditional CSF management. The system’s intelligent digital pump and dual-lumen catheter enable gravity-driven fluid drainage and controlled catheter irrigation, resulting in active fluid exchange.

This active fluid exchange provides:

- Potential reduction of catheter occlusion due to automated cleansing of the catheter tip
- A catheter designed for controlled irrigation, enhancing the ability to remove the collected blood
- Removal of blood and proteins that can start an inflammatory cascade\(^1\) and secondary hemorrhagic events

**Integrated, Continuous ICP Monitoring**

- Provides continuous pressure measurement without interrupting drainage
- Combines irrigation, drainage, and ICP measurement into one easy-to-use system
The World’s First Irrigating Intracranial Drainage System!

**Chronic Subdural Hematoma**  
Case Review by Dr. Sumeet Vadera from UC Irvine Health

**PATHOLOGY TREATED**
- 82-year-old male presented with confusion, right sided weakness and neglect, and expressive aphasia.
- Computed tomography demonstrated a 2.5 cm left convexity mixed density extra-axial hematoma, causing a 9 mm rightward midline shift and subfalcine herniation.

**TREATMENT DESCRIPTION**
- Mini craniotomy for evacuation of the subdural hematoma.
- Intraoperatively, there was minimal brain re-expansion.
- Active Fluid Exchange was performed with the IRRAflow system, with an irrigation rate of 40 ml/hour.

**TREATMENT RESULTS**
- No catheter occlusion due to IRRAflow’s automated irrigation.
- No drainage-related infection.
- Active irrigation and associated drainage assisted in providing controlled re-expansion of brain tissue back into the subdural space.
- Head CT done prior to discharge showed continued improvement in subdural fluid collection and complete resolution of the midline shift.
- The patient was seen on postoperative day 14 with complete resolution of symptoms.

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Pre-IRRAflow Treatment  
Post-IRRAflow Treatment
<table>
<thead>
<tr>
<th>Product #</th>
<th>Product Name</th>
<th>Product Description</th>
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</thead>
<tbody>
<tr>
<td>IGS 010</td>
<td>IRRaflow 1.5 Catheter, 9F, 40cm</td>
<td>Dual-lumen catheter that combines active irrigation with CSF drainage.</td>
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<tr>
<td>IGS 020</td>
<td>IRRaflow 2.0 Catheter, 9F, 38cm</td>
<td>Dual-lumen catheter that combines active irrigation with CSF drainage, with a slightly larger inner diameter which enhances fluid removal.</td>
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<tr>
<td>ICDS 020</td>
<td>IRRaflow Tube Set</td>
<td>Intelligent digital pump enables communication between control unit and catheter to provide automated irrigation, fluid drainage, and ICP monitoring.</td>
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<tr>
<td>ICCU 020</td>
<td>IRRaflow Control Unit</td>
<td>Active fluid exchange via an intuitive touchscreen with personalized alarm settings that provide control when managing ICP and CSF.</td>
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