

AUDITORY BRAINSTEM IMPLANTATION

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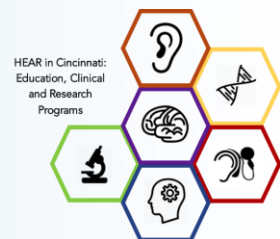
Chief, Division of Otology/Neurotology

Director of Adult CI / ABI Program

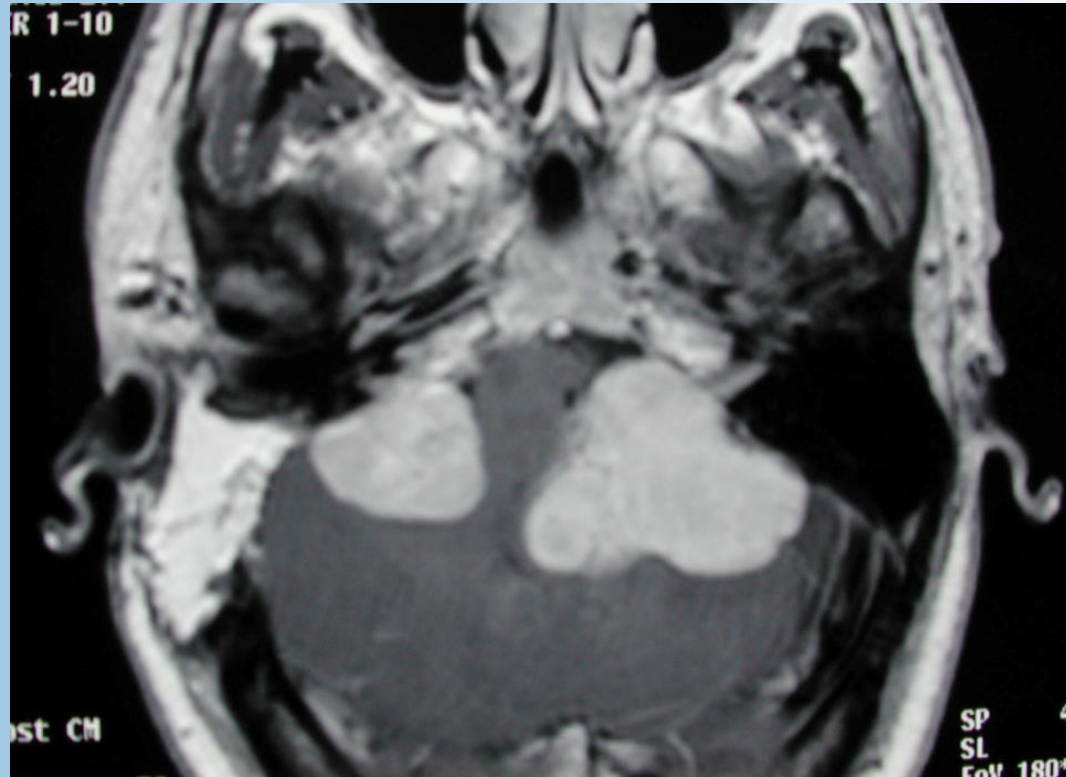
Program Director, Neurotology Fellowship

"Speech is civilization itself. The word, even the most contradictory word, preserves contact---it is silence which isolates."

Thomas Mann



WHAT DISEASE DOES THIS PATIENT HAVE?

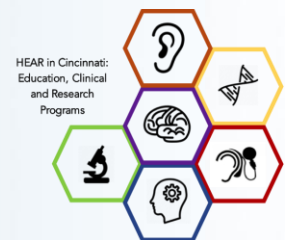


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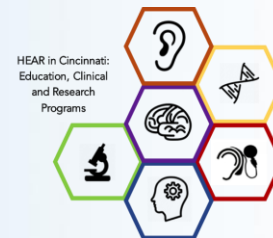
Auditory Brainstem Implants (ABI)

- **First implanted 1979**
- **>600 implanted worldwide**
- **FDA approved- 2000**
- **Approved for use in adults in the U.S.**
 - Use in children in Europe
- **Primary indication: NF-2 (bilateral AN's)**

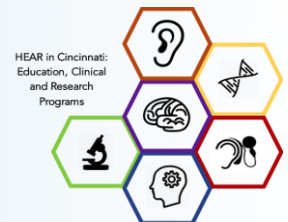


INDICATIONS

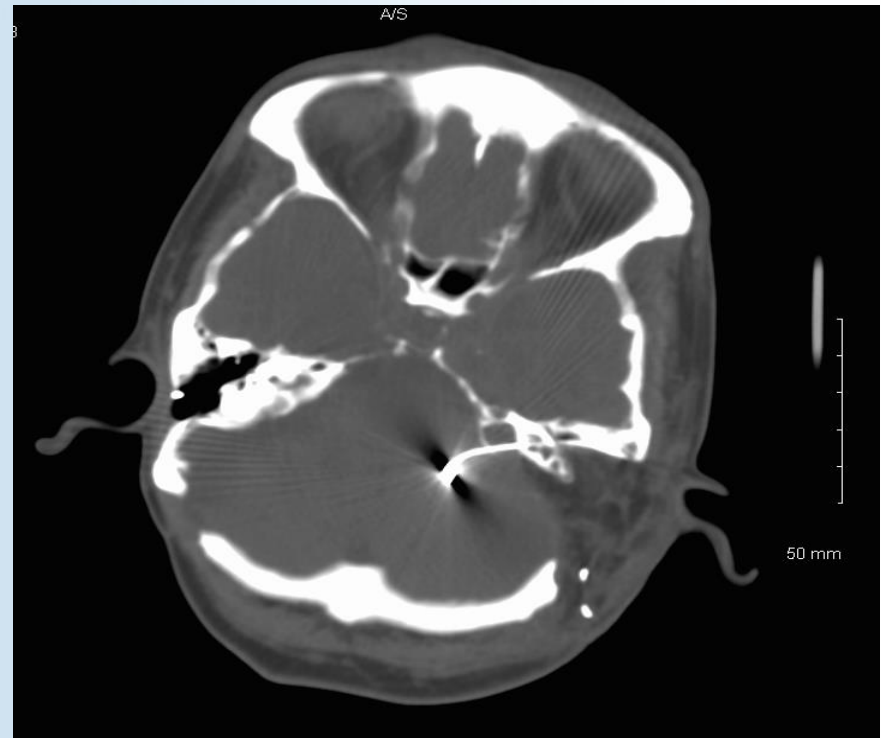
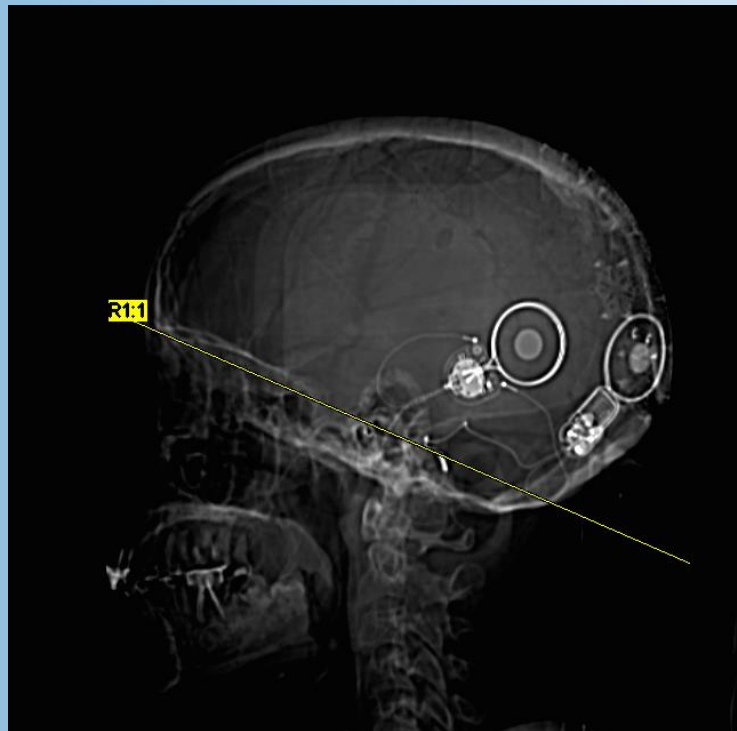
- **NF2 (neurofibromatosis type 2)**
- **COCHLEA/NERVE APLASIA**
- **LABYRINTHINITIS OSSIFICANS**
- **TEMPORAL BONE FRACTURES**
- **POOR COCHLEAR IMPLANT RESULTS?**



CASE 1- NF2 PATIENT



WHERE IS THE ABI PLACED?

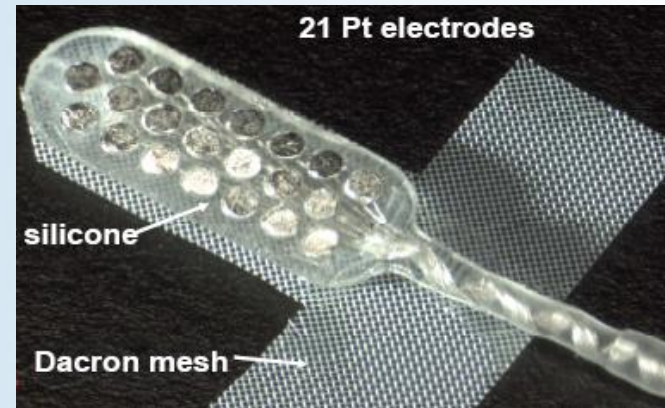


Auditory Brainstem Implants (ABI)

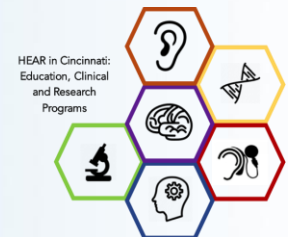
Cochlear is pleased to announce the launch of its new Auditory Brainstem Implant, the Cochlear™ Nucleus® Profile ABI541.¹

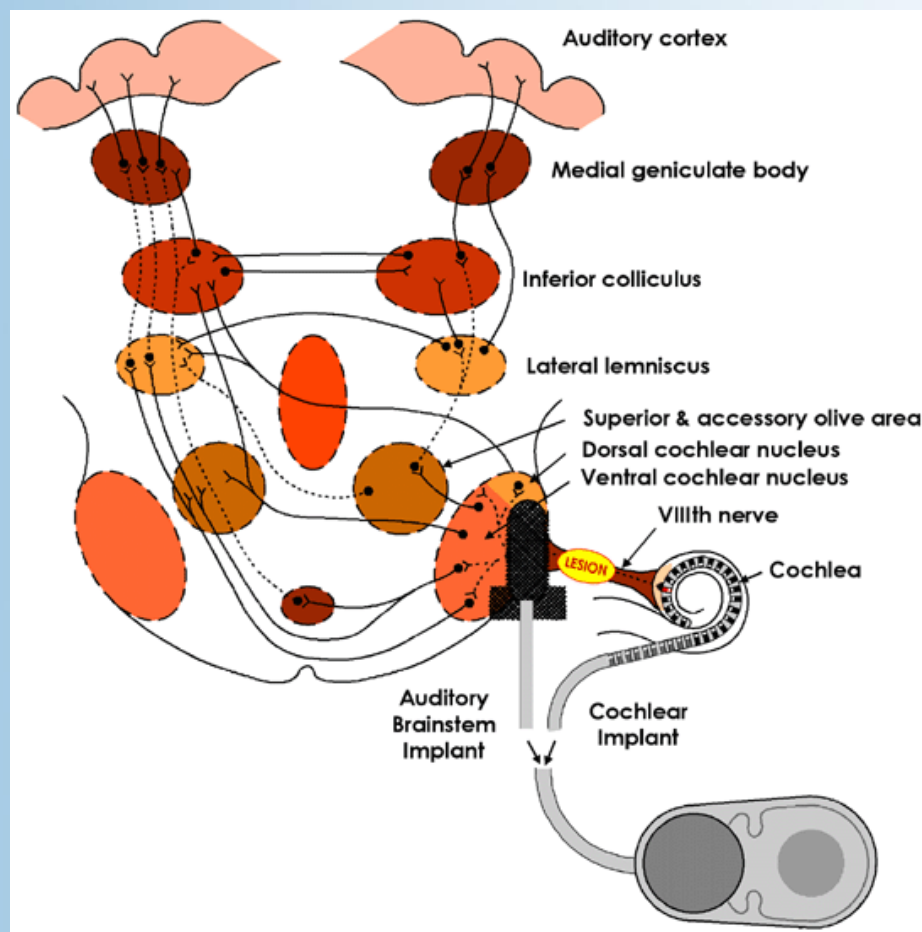


Nucleus Profile ABI541



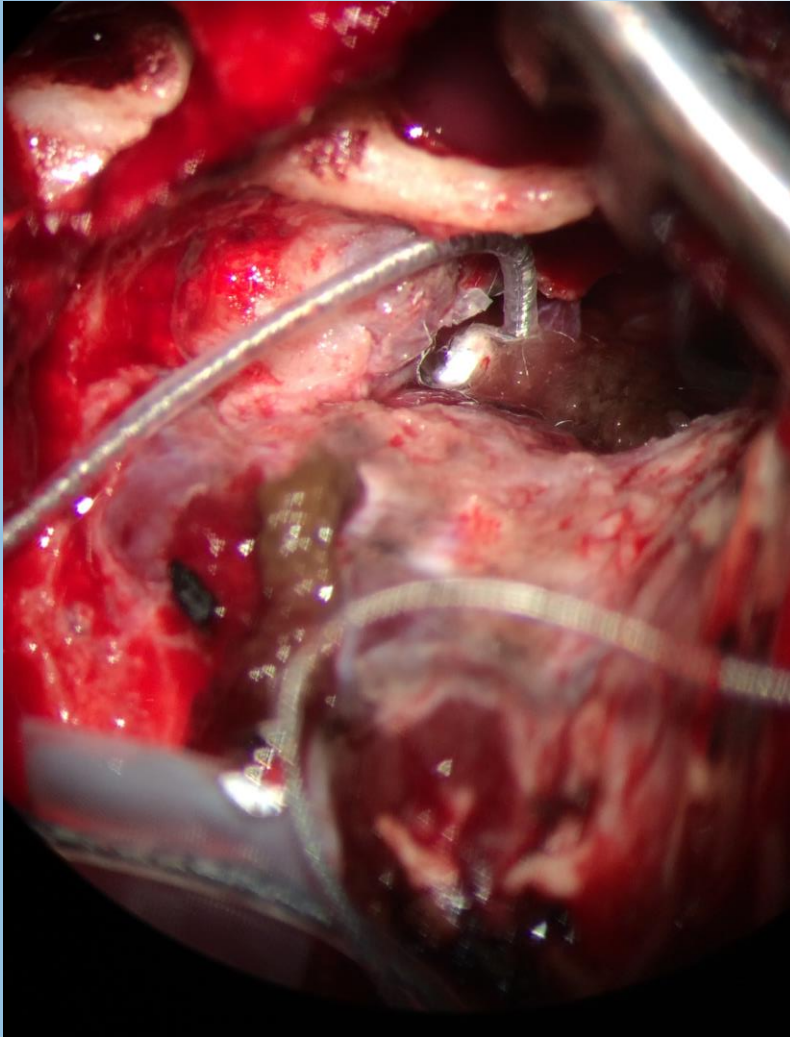
Auditory Brainstem Implant (ABI)





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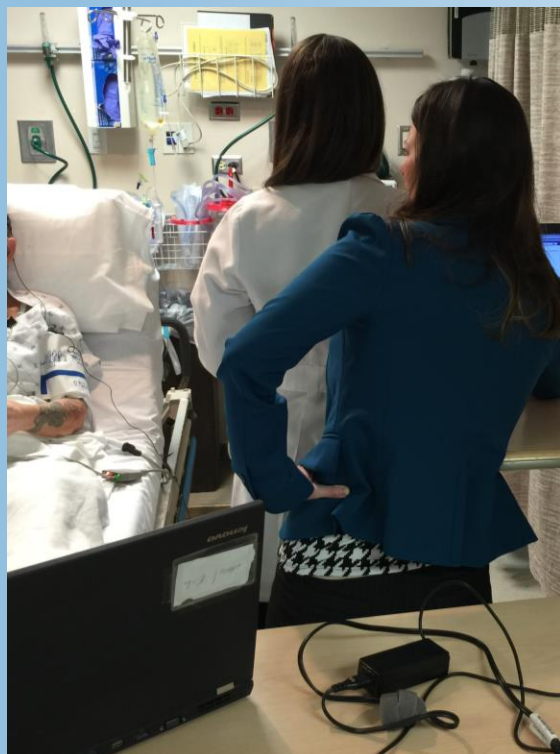




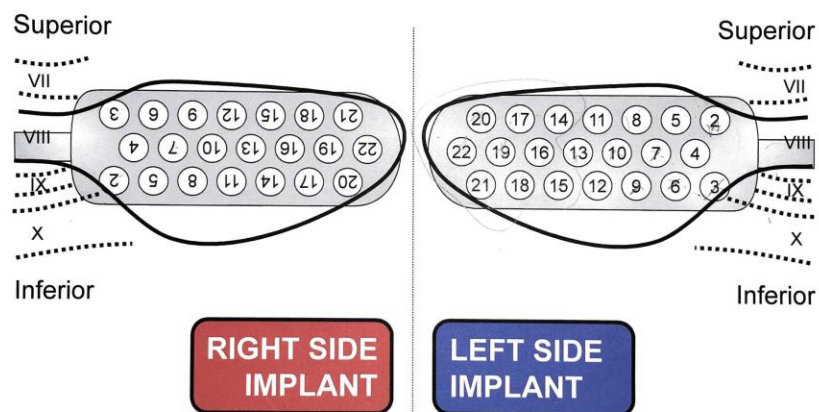


**WHAT IS THE PROBLEM HERE AND THE
POTENTIAL RISK?**

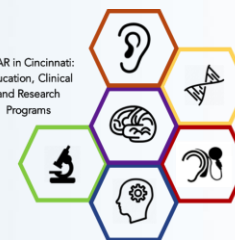




Nerve Proximity by Side



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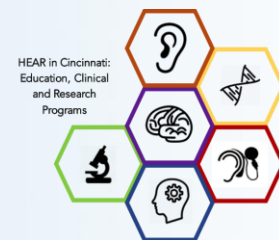


ABI RESULTS

- **Facilitates sound awareness**
- **Non-auditory side effects**
- **Assists with lip reading**
- **Few have open-set word recognition**
- **Takes longer to program than CI**
- **Electrode displacement can occur**



WHAT PATIENTS DO BEST WITH THE ABI AND MAY HAVE OPEN- SET RECOGNITION (I.E. TALK ON THE TELEPHONE?)



WHAT ARE THE APPROACHES TO PLACE AN ABI?



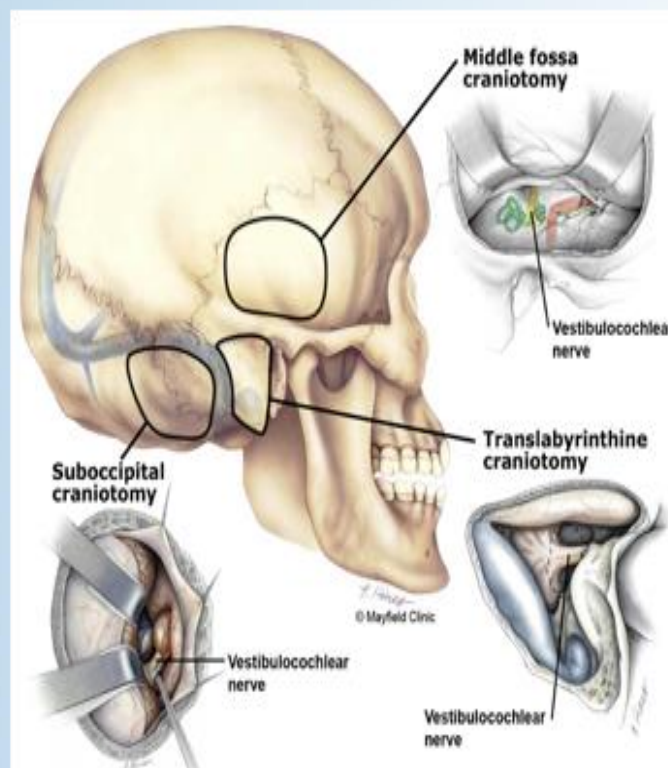
ABI APPROACHES

- **TRANSLABYRINTHINE**
- **RETROSIGMOID**
- **EXTENDED MCF**



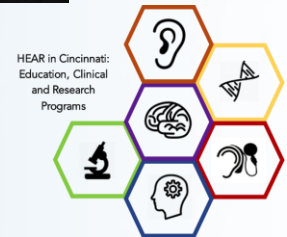
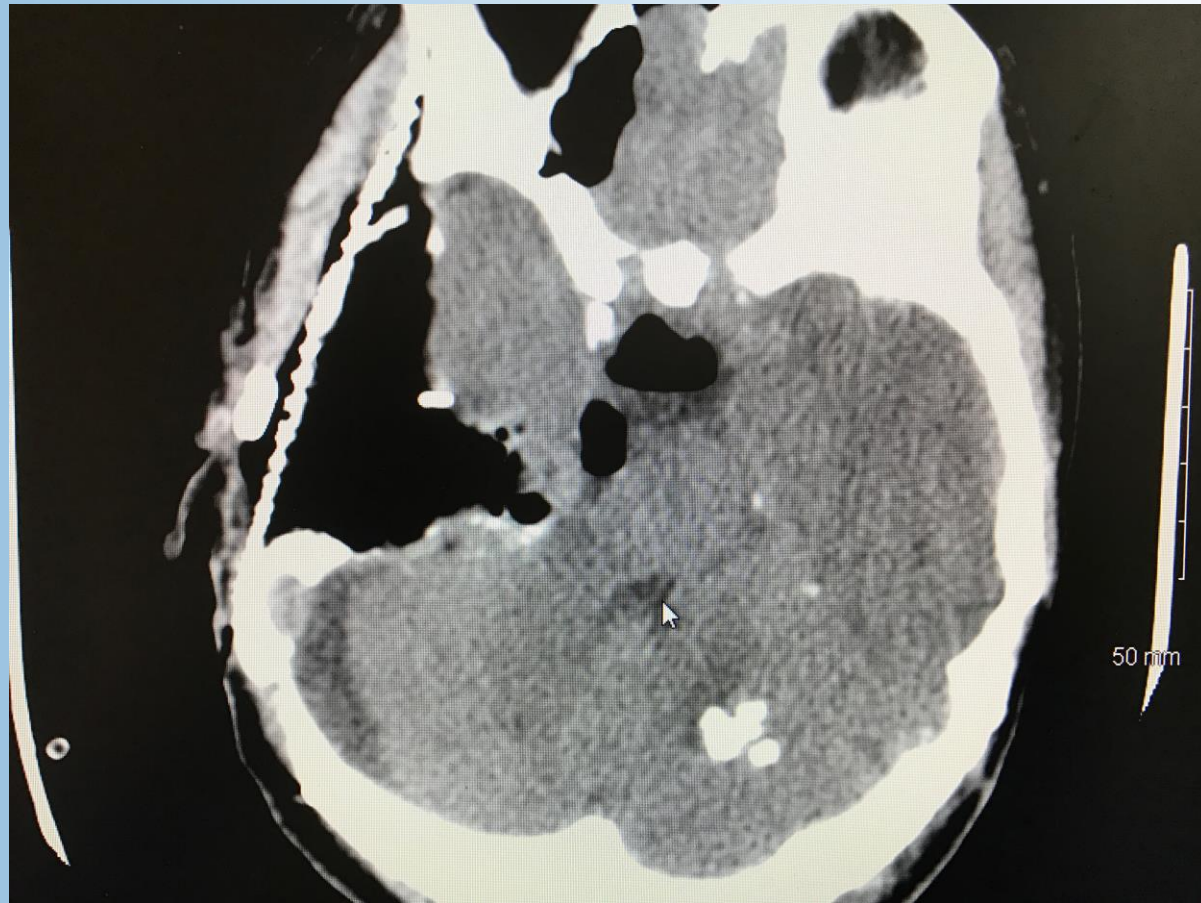
SURGICAL APPROACHES

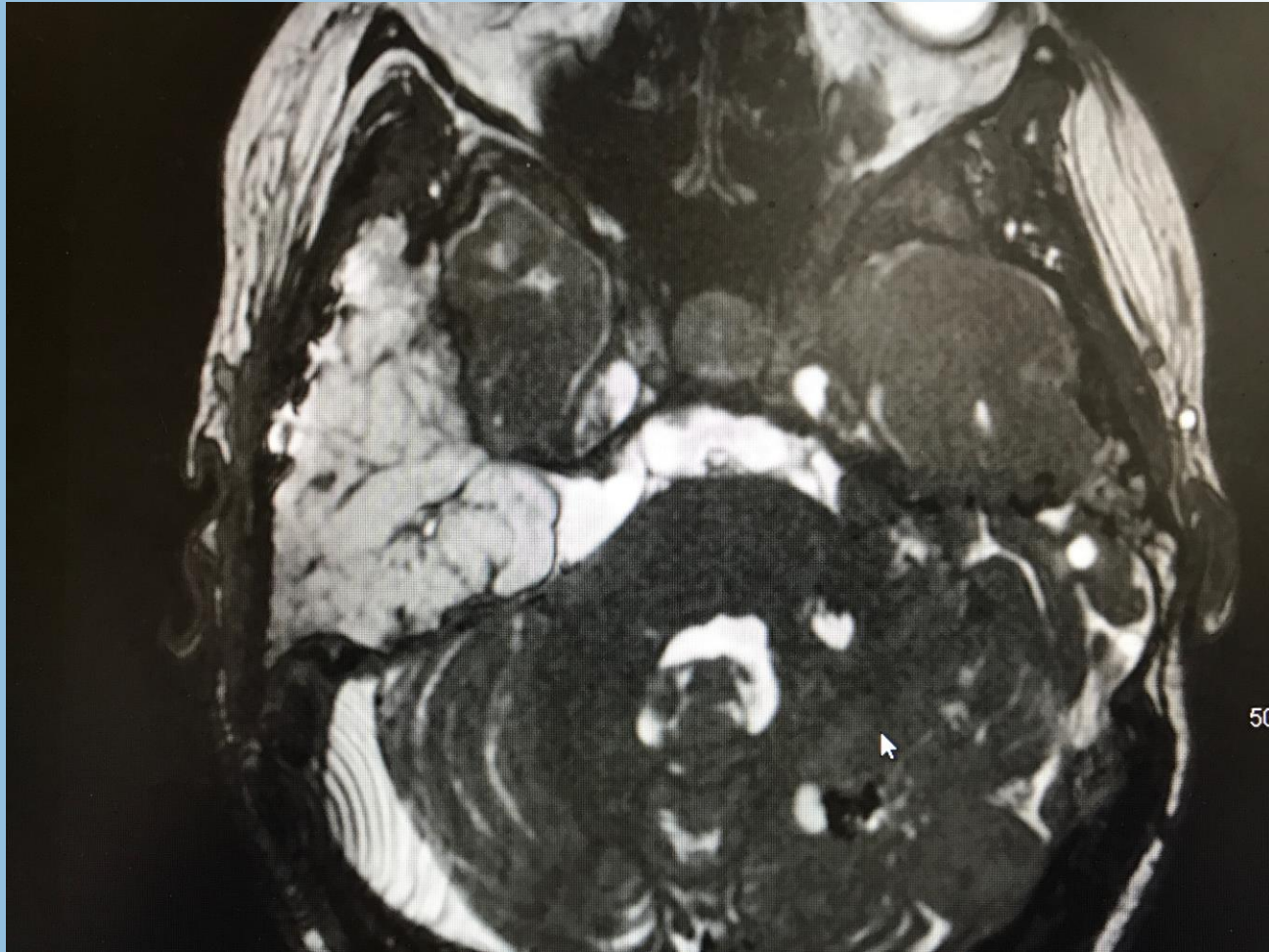
- **MIDDLE CRANIAL FOSSA** for tumors where preserving facial function and hearing is optimal
- **RETROSIGMOID**: for small and large tumors while preserving facial function and a degree of hearing if possible
- **TRANSLABYRINTHINE**: for patients who already have hearing loss or tumor size and position indicate removing the labyrinth





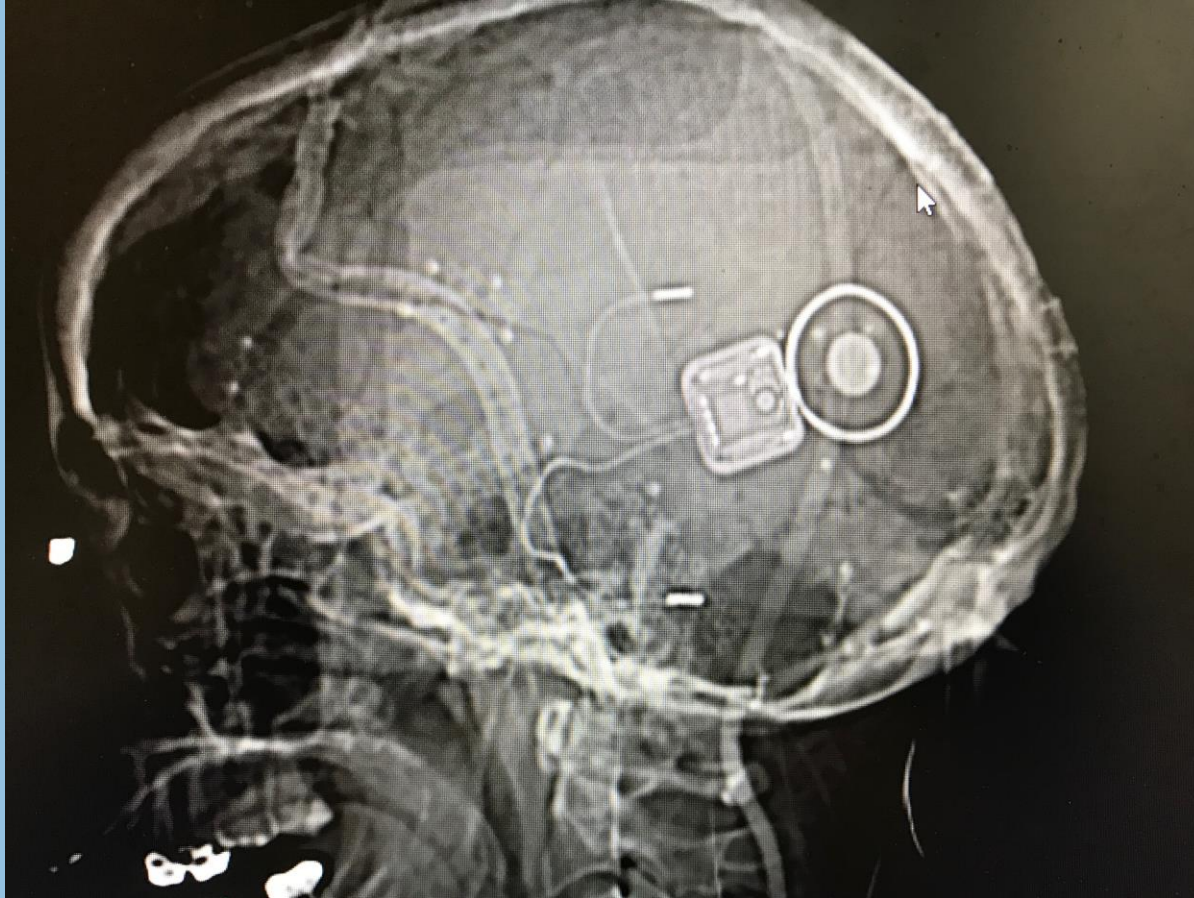






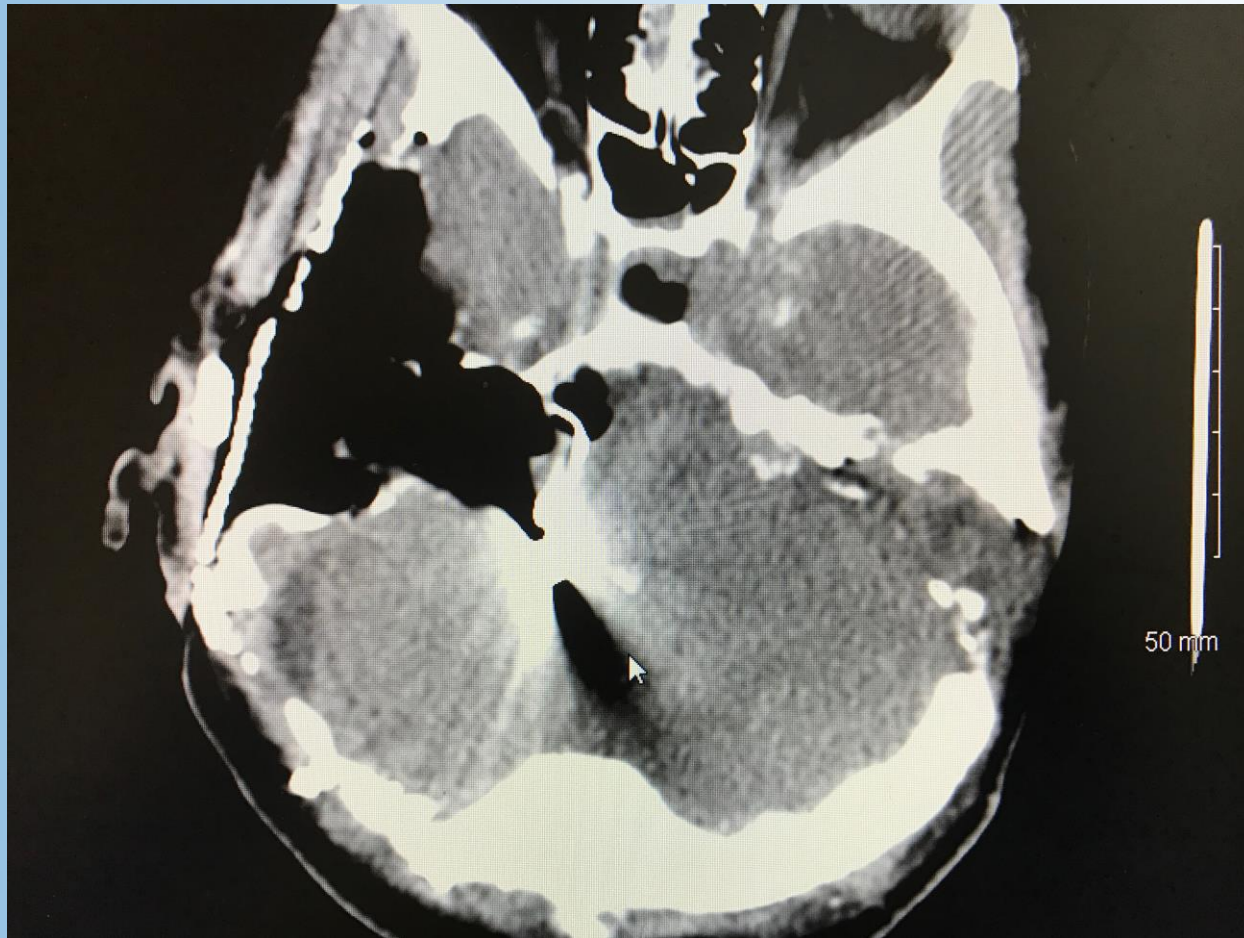
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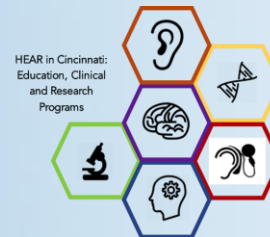





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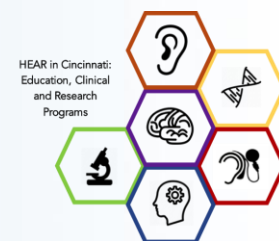


Cincinnati, OH

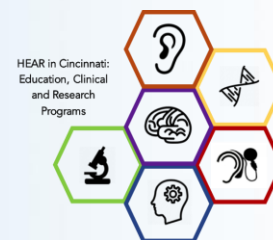
Hearing Again is History in the Making



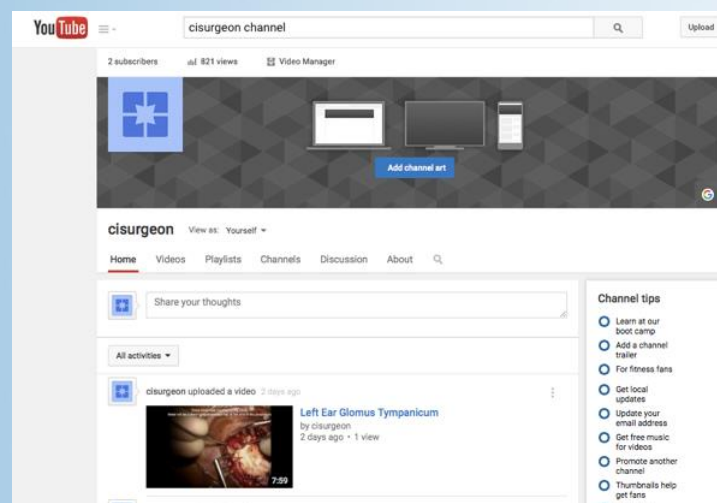
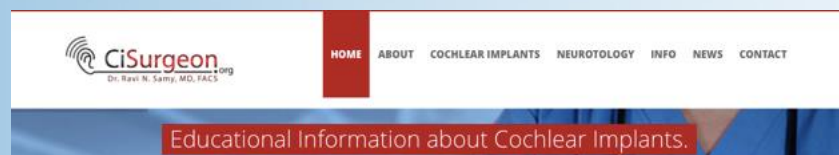
2017 was a year that Jess Toews will never forget.



**“WE TRY NEVER TO FORGET THAT
MEDICINE IS FOR THE PEOPLE. IT IS
NOT FOR THE PROFITS. THE PROFITS
FOLLOW, AND IF WE HAVE
REMEMBERED THAT, THEY HAVE
NEVER FAILED TO APPEAR.”
GEORGE W. MERCK**







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