



Surgical Overview:

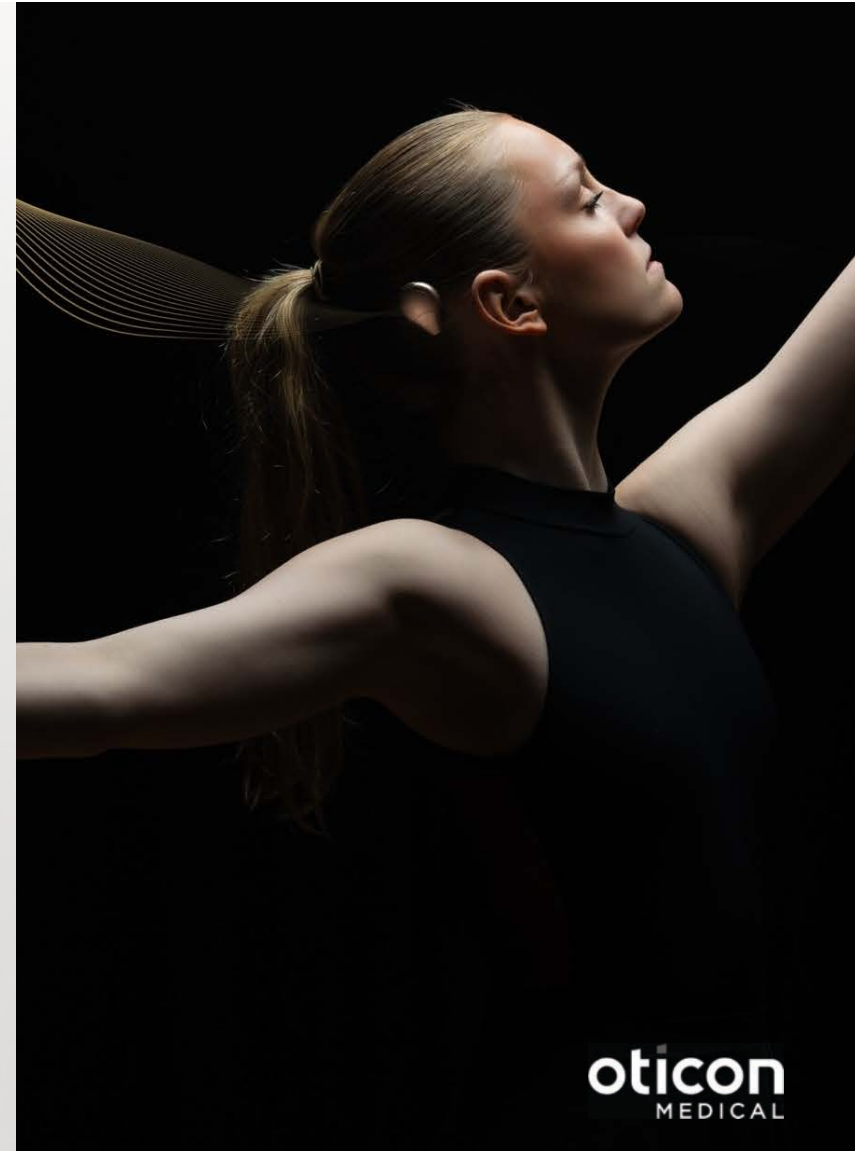
Oticon Medical Sentio Implant System

Anthony Puricelli- Territory Manager –South Central

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Agenda

- Introduction
- What's the hype all about?
- Surgical kit and equipment
- The Procedure: Precision meets flexibility





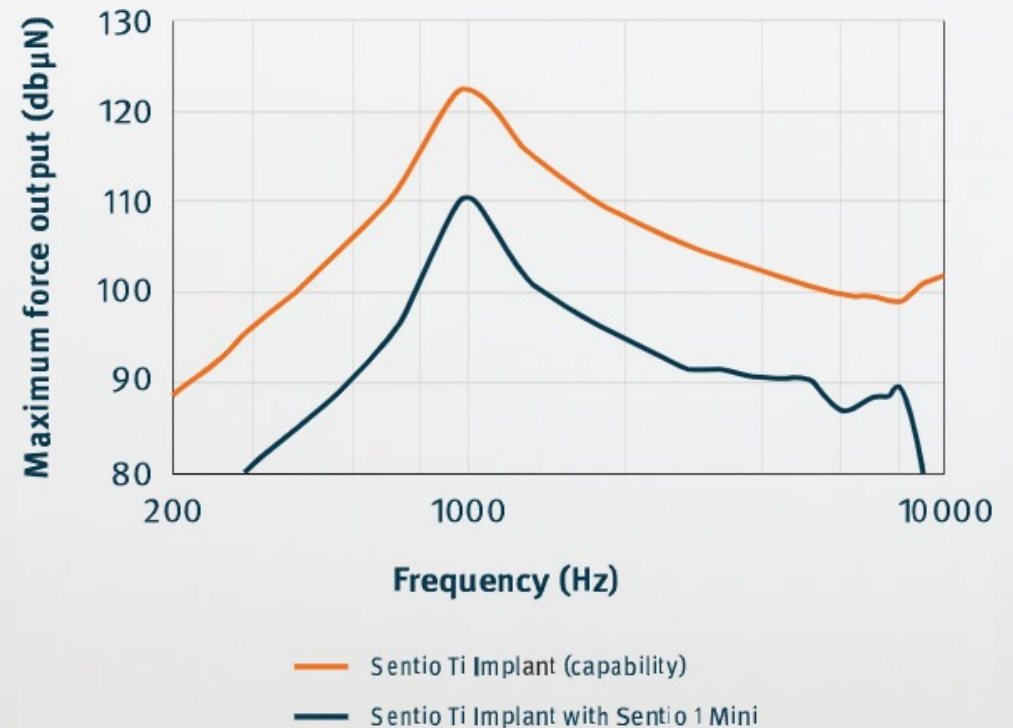
Introduction

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A SuperPowerful implant¹

Sentio Ti Implant is a SuperPowerful implant developed to support patient's progressive hearing loss, **without the need for additional surgeries**¹.

It is designed and verified for a higher maximum force output, so that patients can rely on its ability to **handle more powerful sound processors**¹.





What's the Hype all About?

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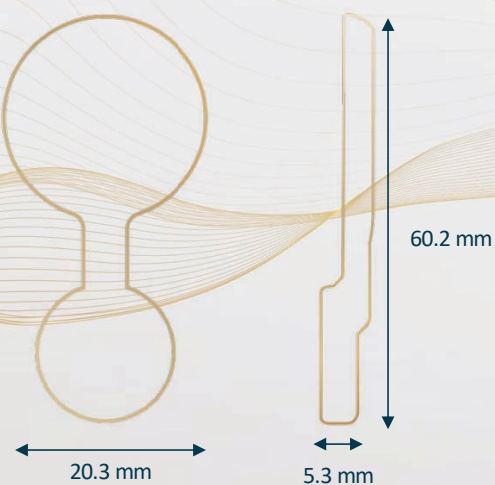
The smallest transcutaneous implant¹



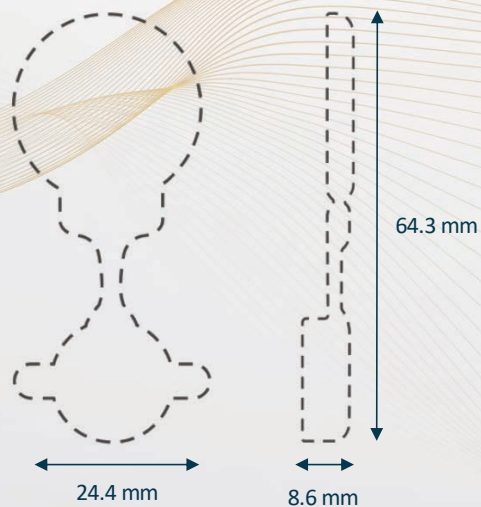
¹Sentio implant and sound processor physical features and comparison to other devices (Doc-00123204)

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The smallest transcutaneous implant¹

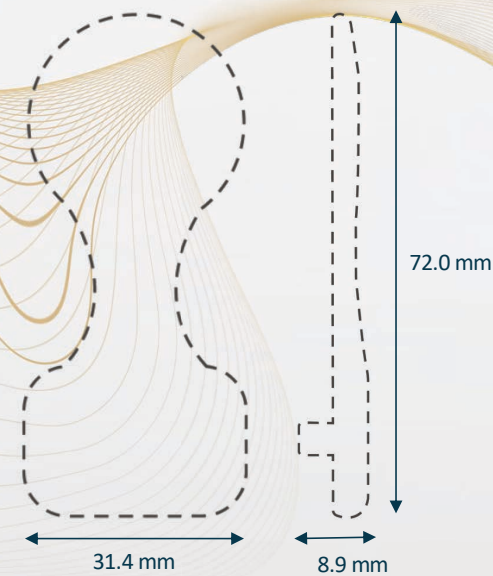


Sentio Ti



Competitor 1

+14%*



Competitor 2

+39%*

¹Sentio implant and sound processor physical features and comparison to other devices (Doc-00123204)
*difference in volume compared to the Sentio Ti Implant

Flexible and easy to install



Flexible neck
(max 30°) in
each direction



Flexible neck
(max 30°)

Flexible drilling depth



Flexible fixation bands



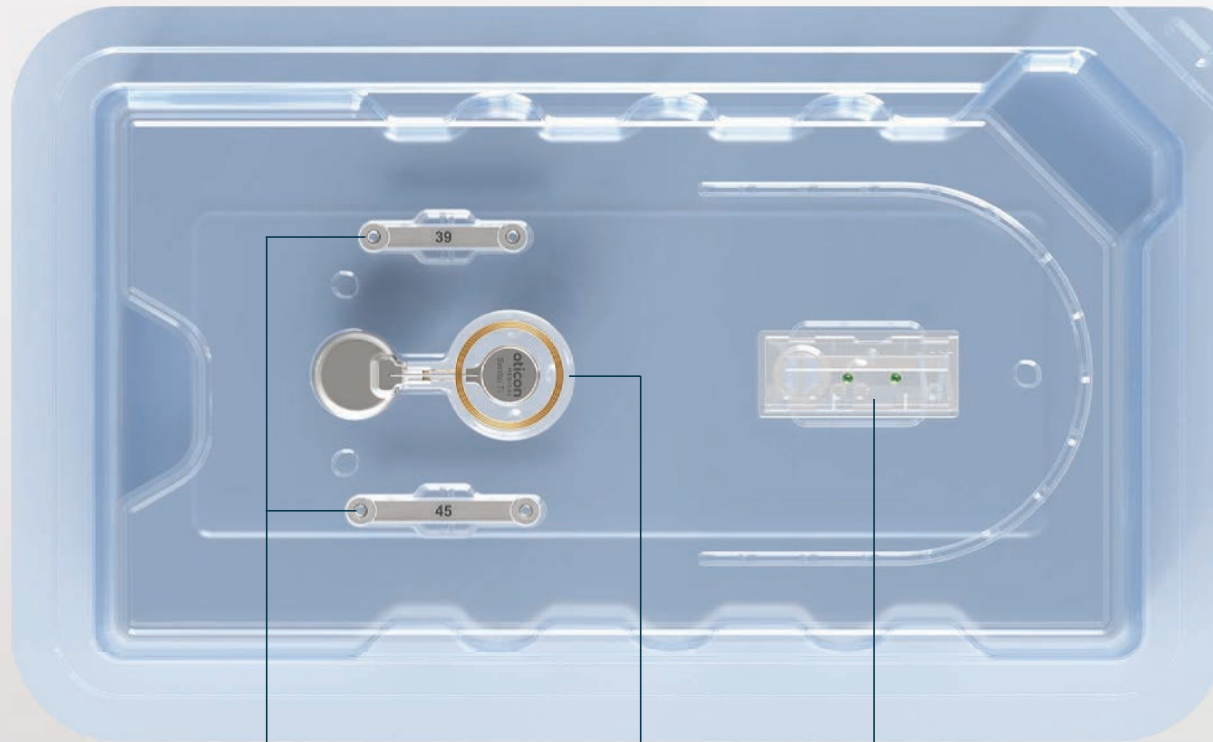
Surgical Kit and Equipment

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Packaging

Sentio Ti implant kit

Sterile blister pack

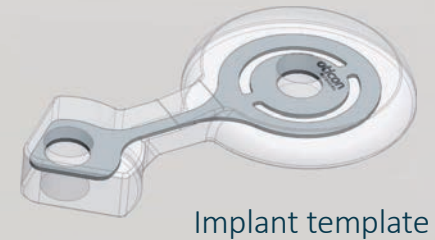


Sentio fixation bands

Sentio Ti implant

Screw box with 2 fixation screws

Sterile envelope



Implant template



Transducer
template

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Packaging

Documents

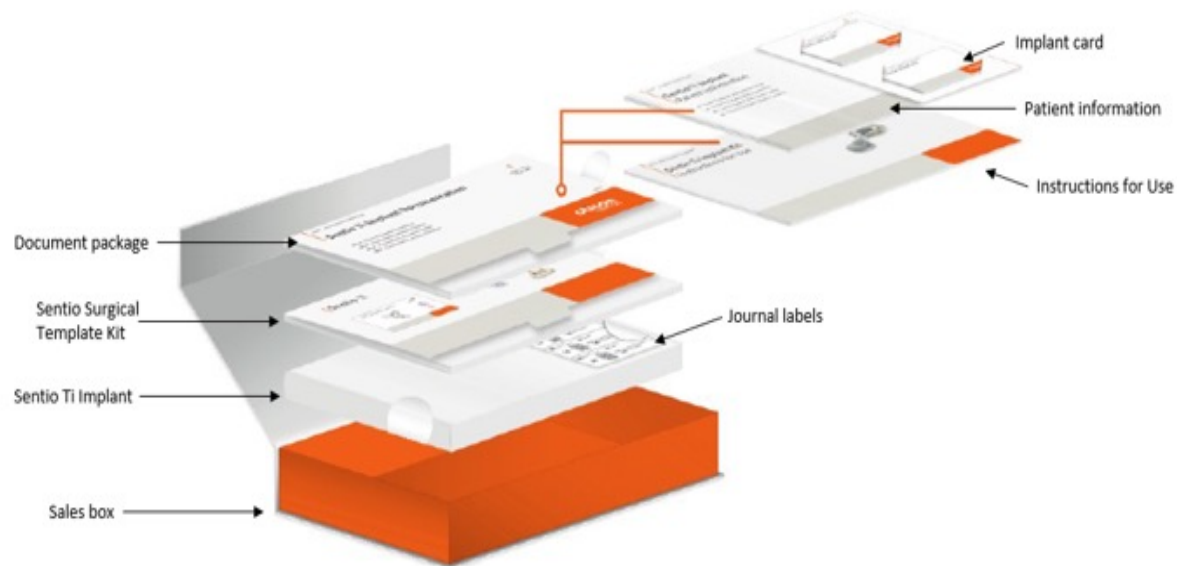
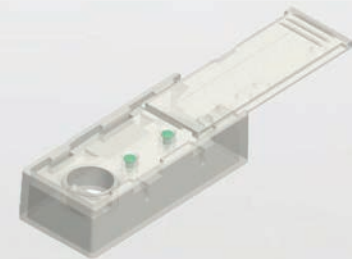


Figure 1: Content of Sentio Ti Implant Kit

- IFU Sentio Ti Implant
- Patient Information
- Implant Card(s)
- Journal labels
(on top of the Sentio implant kit/box)
- Position marker
(non-sterile paper template)

Back up kit fixation screws

Always have available for surgery



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Special instruments

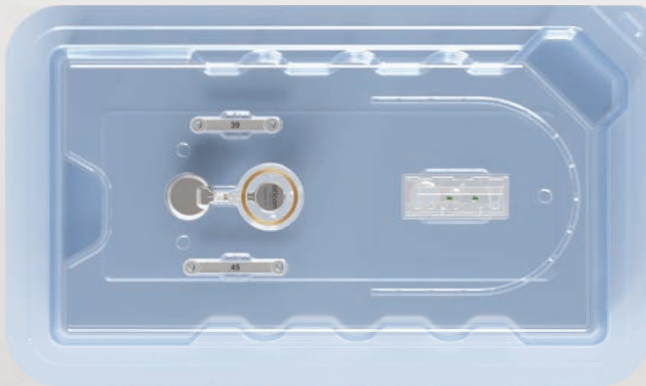
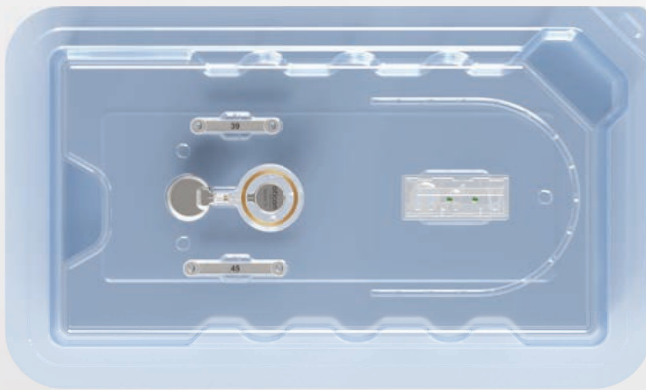
Screwdriver HexaDrive (265497)



- Reusable (needs to be sterilized)

Full Surgical Kit

Includes primary implant, back-up implant, spare fixation screws, & screwdriver



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The Procedure: Where Precision Meets Flexibility

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Surgical Steps

- Pre-operative planning
- Implant site preparation
- Draping
- Incision
- Subperiosteal pocket for receiver coil
- Marking and drilling the recess
- Implant installation and fixation
- Closing the incision
- Dressing

Pre-operative planning

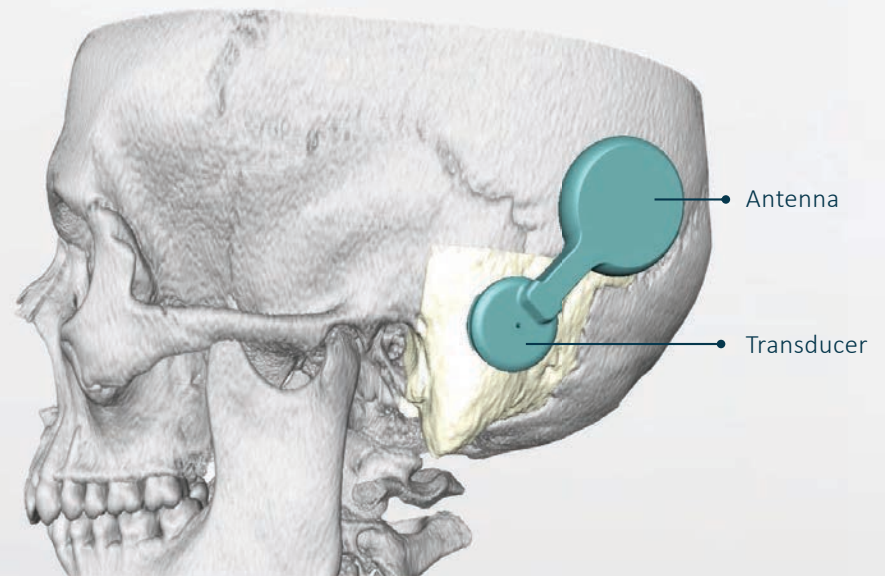
No preoperative CT scan required

The fixation screws engage 2.7 mm in the bone.

A preoperative CT scan is typically **not necessary** for patients with normal anatomy.

A preoperative CT scan is recommended for patients for whom thin bone is expected including:

- Patients who have had previous surgery in the area of the implant site and/or
- Congenital craniofacial or
- Auricular anomalies where a hypoplasia of the mastoidal anatomy might be present
- Patients under the age of 18



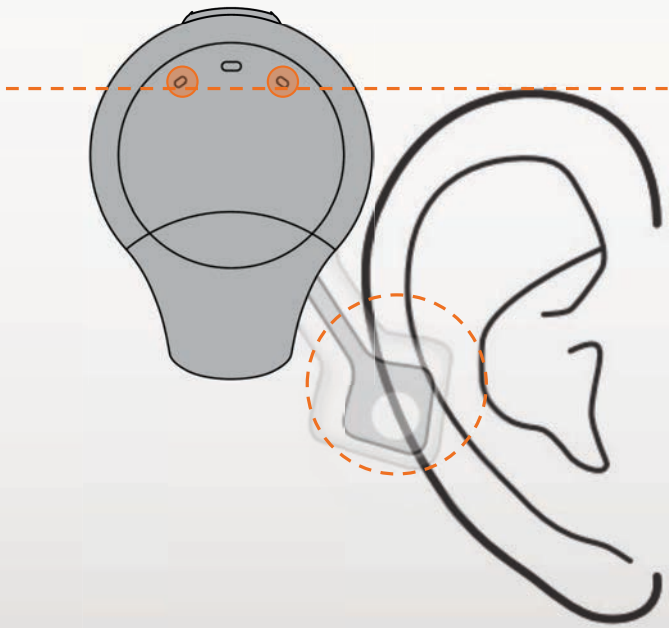
Sentio Surgery



Implant site preparation

- Position patient for optimal access
- Shave and disinfect incision area
- Use local or general anesthesia
 - General anaesthesia is most common

Sentio Surgery



Implant site preparation

Position microphones above pinna

Place transducer near ear canal

- Use paper/implant template

Avoid interference with the pinna or glasses

Outline implant on skin and draping

Mark transducer centre

Measure skin/tissue thickness over receiver coil

- If >9mm, tissue reduction is recommended

Sentio Surgery



Implant site preparation

Position microphones above pinna

Place transducer near ear canal

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Avoid interference with the pinna or glasses

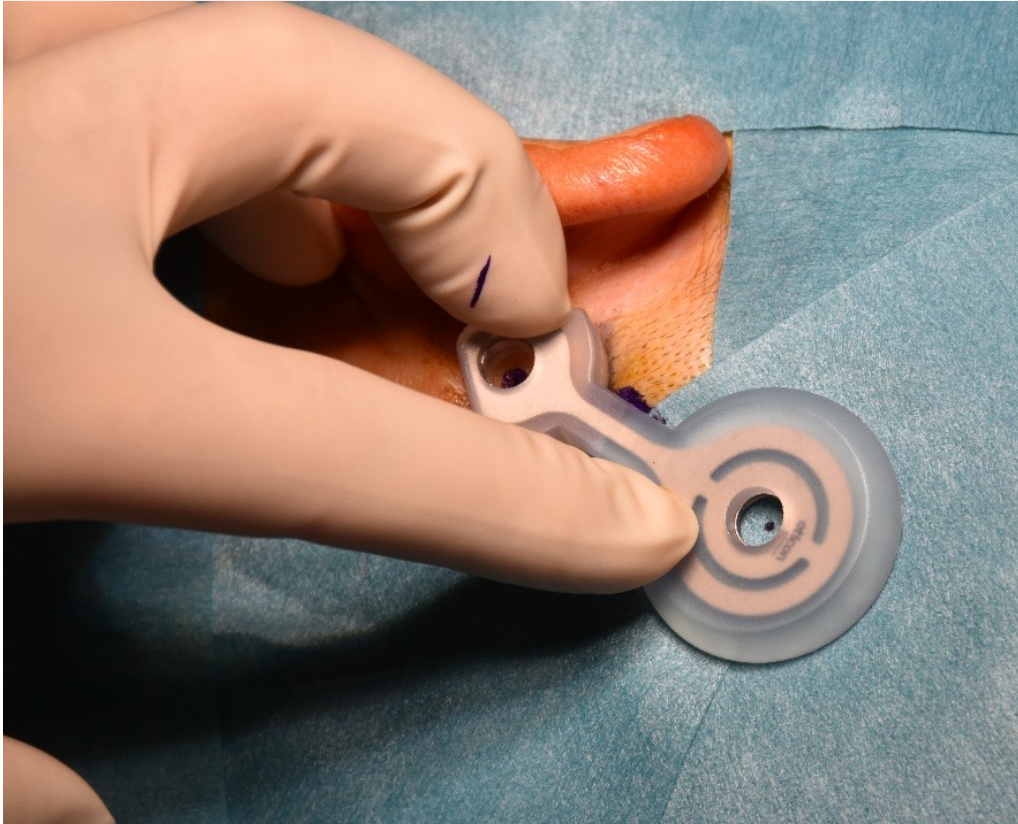
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Sentio Surgery



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Sentio Surgery



Implant site preparation

Position microphones above pinna

Place transducer near ear canal

- Use paper/implant template

Avoid interference with the pinna or glasses

Outline implant on skin and draping

Mark transducer center (optional)

Measure skin/tissue thickness over receiver coil

- If >9mm, tissue reduction is recommended

Sentio Surgery



Implant site preparation

Position microphones above pinna

Place transducer near ear canal

- Use paper/implant template

Avoid interference with the pinna or glasses

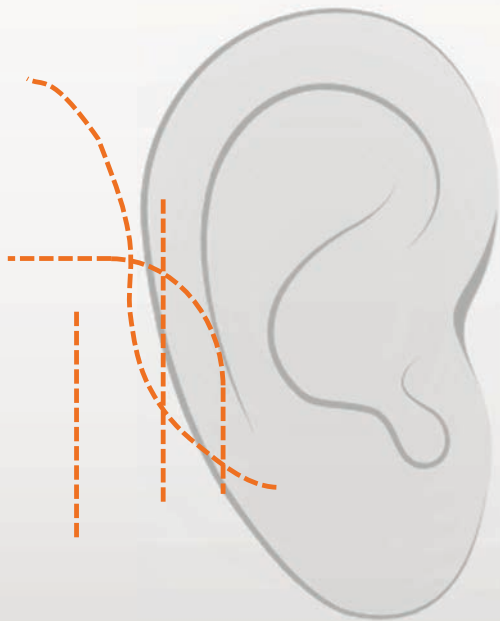
Outline implant on skin and draping

Mark transducer centre

Measure skin/tissue thickness over receiver coil

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Sentio Surgery



Incision

Any retro-auricular incision is possible

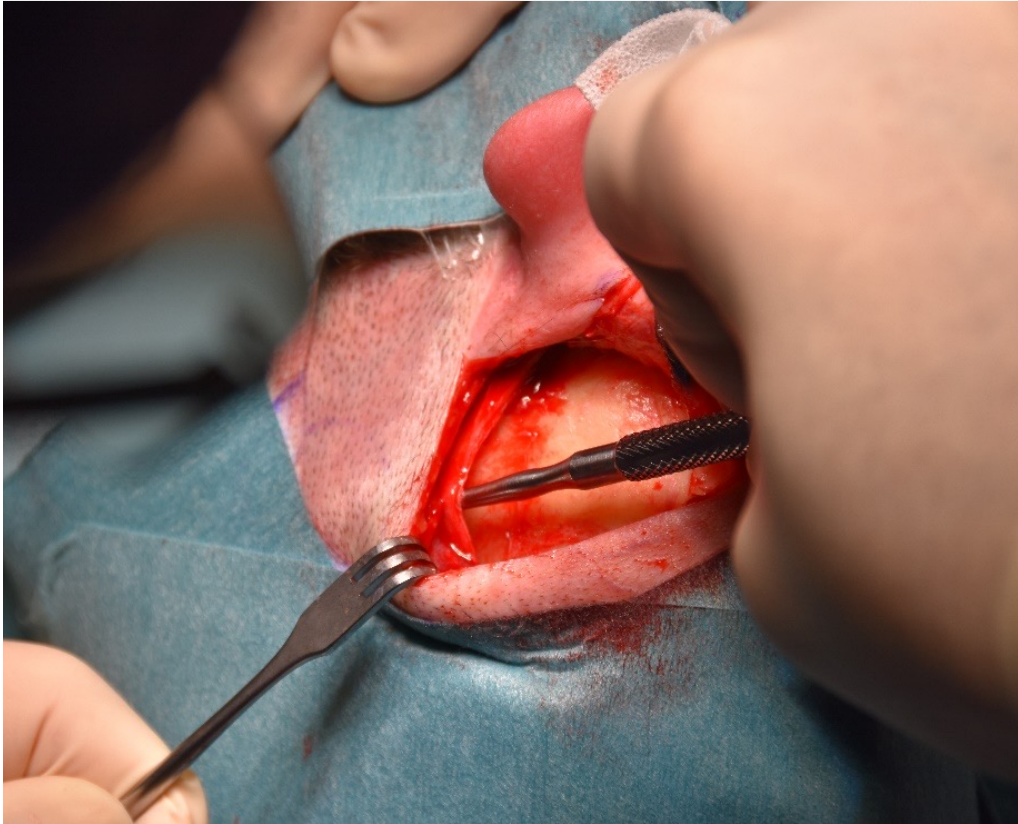
Things to consider:

- Avoid incision over receiver coil
- Utilise existing incisions when possible
- Adjust incision for mastoidectomy
- Extend incision superiorly for skin reduction
- Space for fixation band and screws

Separate incision (if necessary)

- Make separate incision in periosteum for periosteal flap

Sentio Surgery

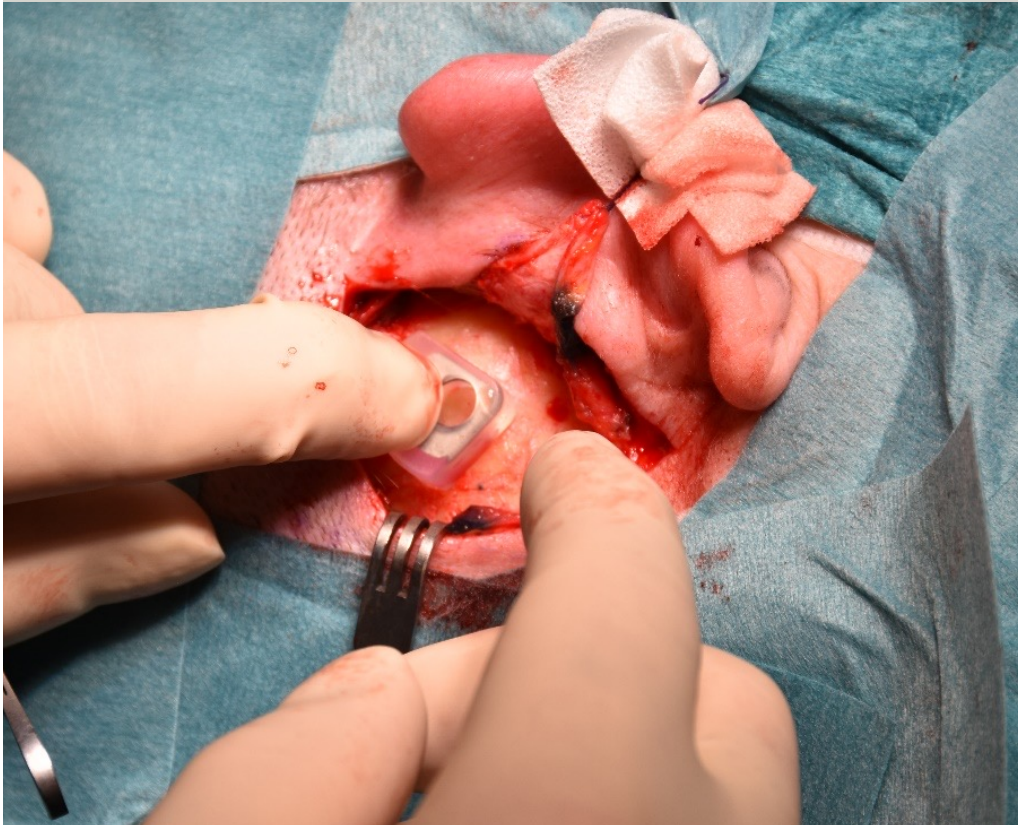


Create subperiosteal pocket for receiver coil

Create snug-fit subperiosteal pocket for receiver coil

Receiver coil should be placed under the periosteum for MRI safety

Sentio Surgery



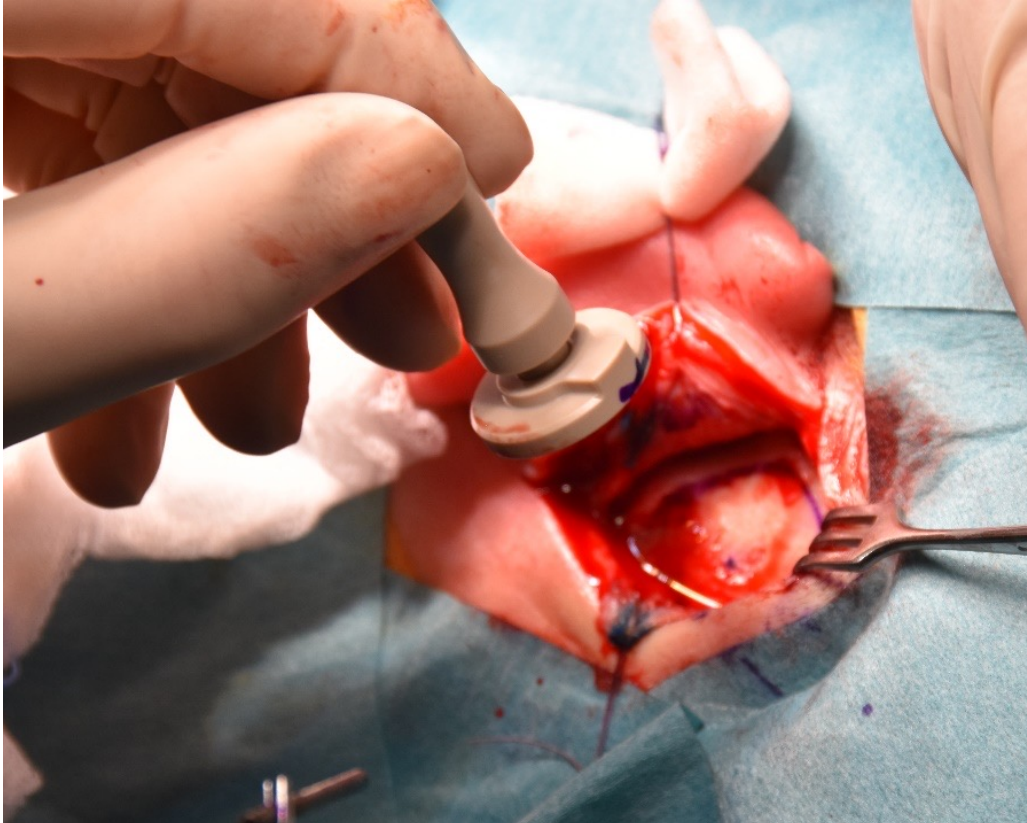
Marking recess for transducer on the bone

Use the implant template to mark the center

Use the transducer template to mark the outline of the recess

End result

Sentio Surgery



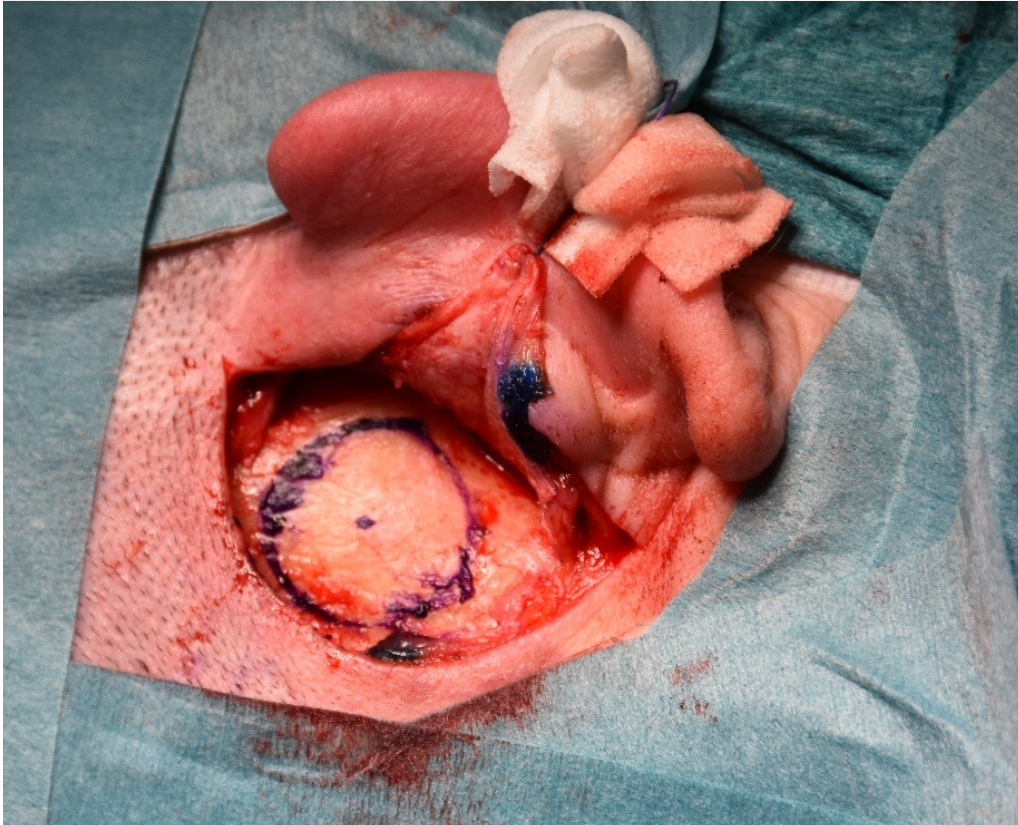
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Sentio Surgery



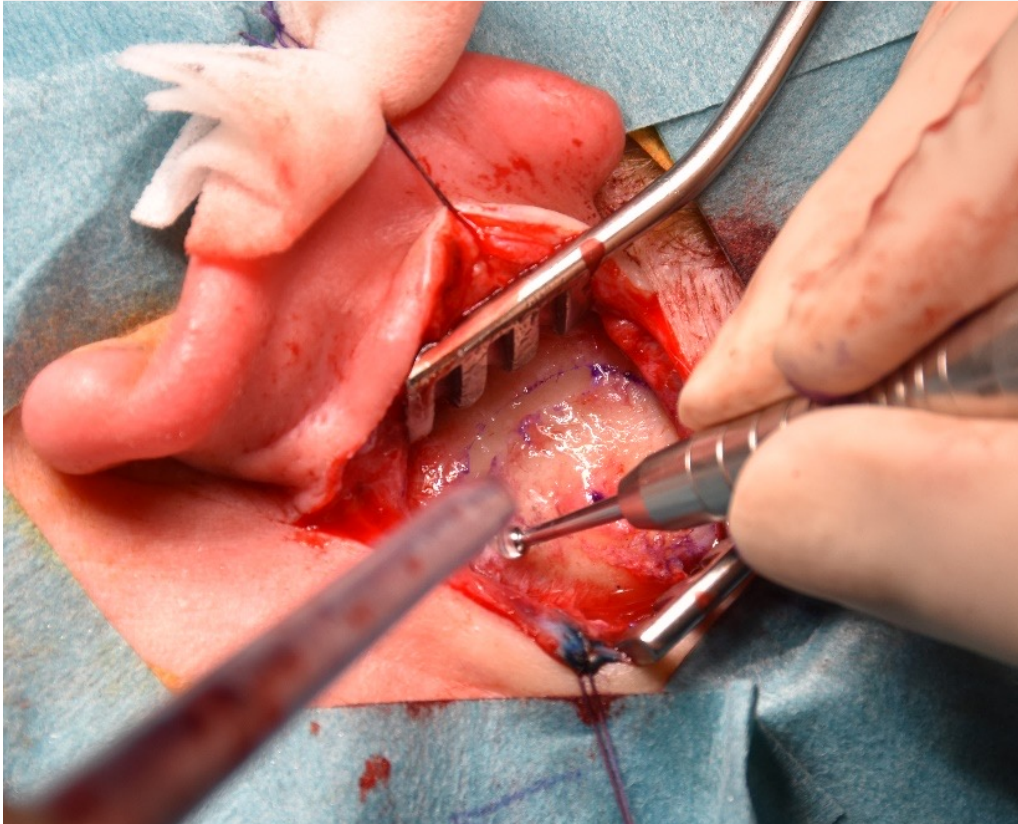
Marking recess for transducer on the bone

Use the transducer template to mark the outline of the recess

Use the implant template to mark the centre

End result

Sentio Surgery



Drilling the recess

Use standard otologic drill and burr bit

- Decrease drill size (2-3 mm) to shape recess sides.
- Ensure generous irrigation

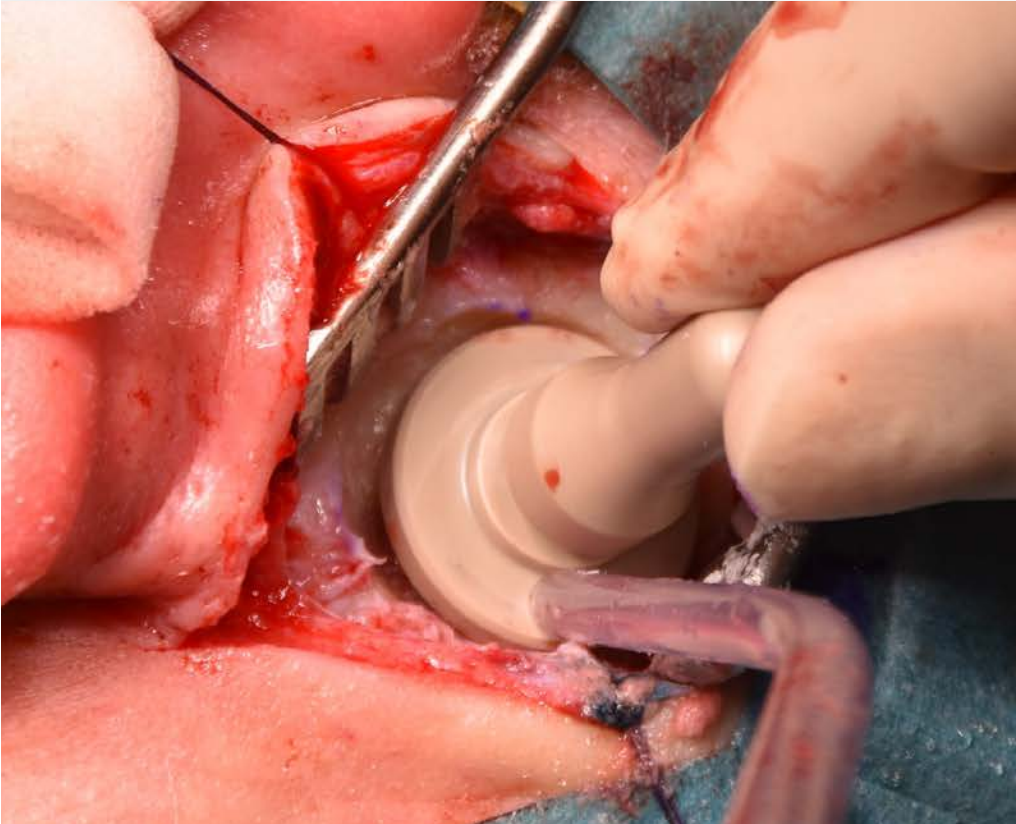
Ensure flat recess for stable transducer contact

- Prevent movement during healing
- Vibrations transfer through transducer bottom
- Partial bone contact sufficient

Maximum 3 mm drill depth

- Use transducer template to check depth and size

Sentio Surgery



Drilling the recess

Use standard otologic drill and burr bit

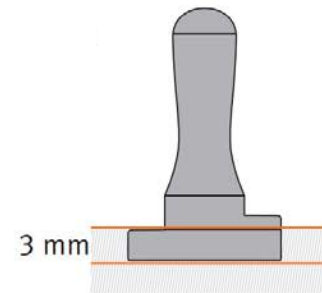
- Decrease drill size (2-3 mm) to shape recess sides.
- Ensure generous irrigation

Ensure flat recess for stable transducer contact

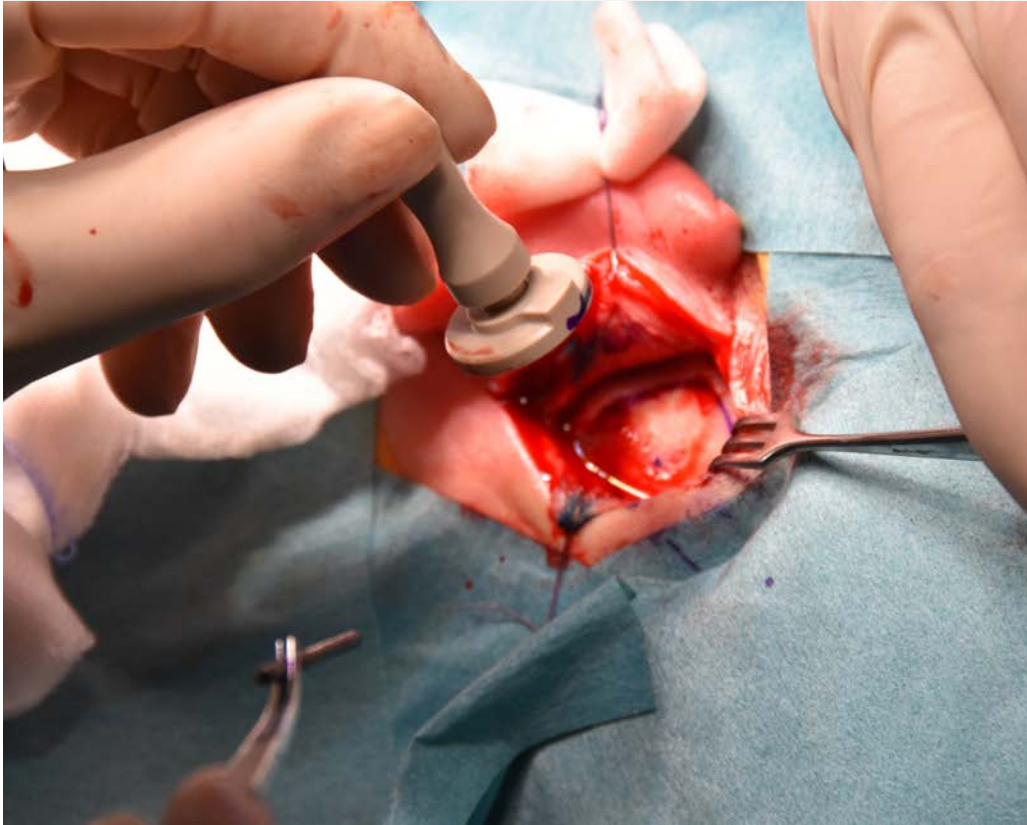
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Maximum 3 mm drill depth

- Use transducer template to check depth and size



Sentio Surgery



Preparing the implant seat

Place the transducer template in the recess

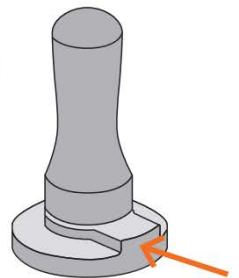
- Mark the direction and the width of the neck with the elevated mark

A short slope

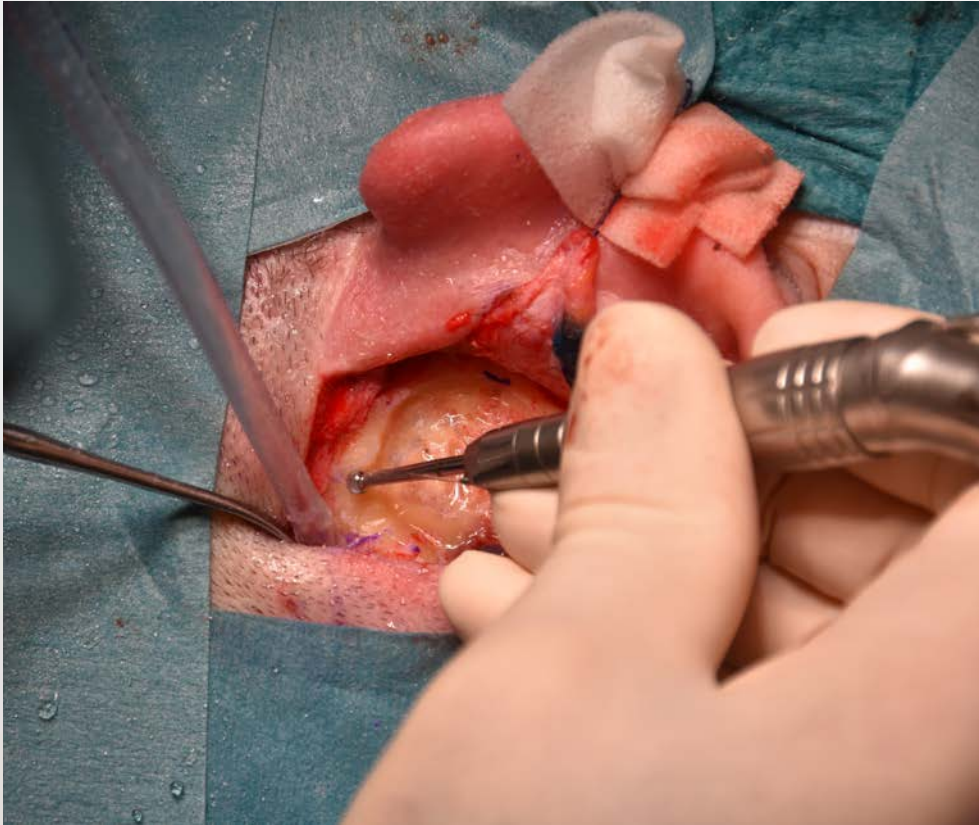
- From the bottom of the recess
in the direction of the implant neck

Verify that the template is well placed

Precaution



Sentio Surgery



Preparing the implant seat

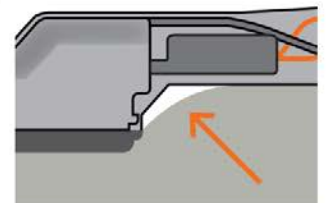
Place the transducer template in the recess

- Mark the direction and the width of the neck with the elevated mark

Drill a short slope

- From the bottom of the recess in the direction of the implant neck

Verify that the template is well placed



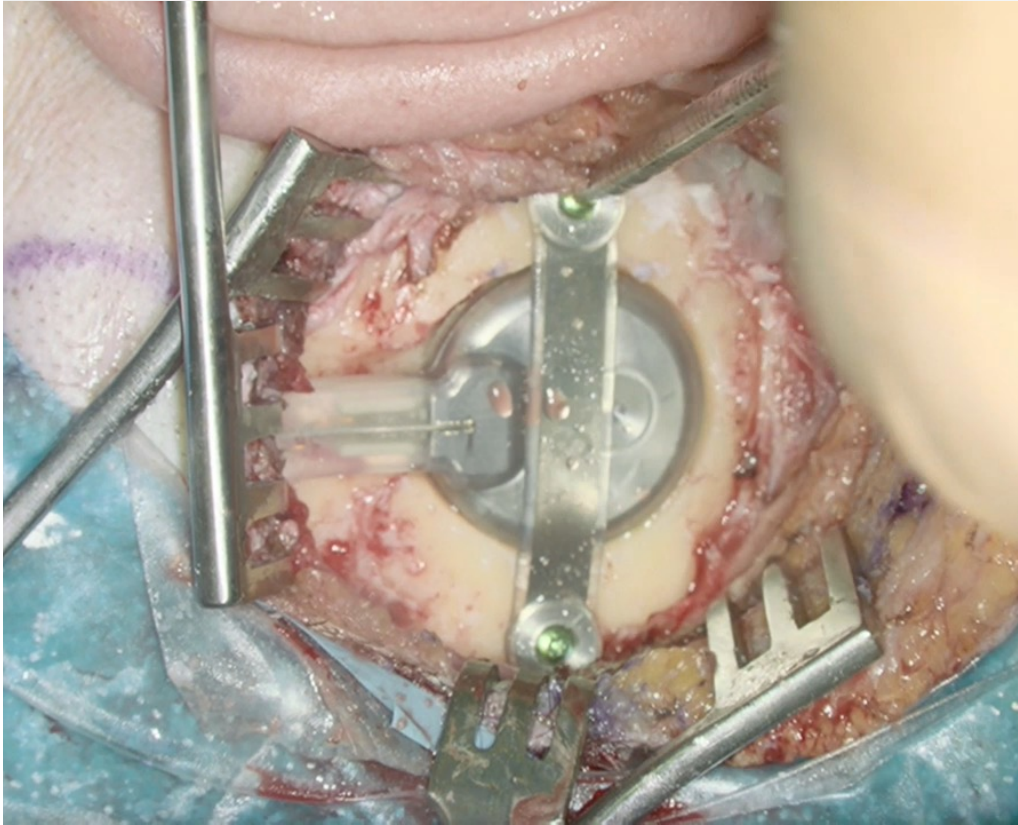
Sentio Surgery



Implant installation

- Open sterile package and wet the implant
- Text on receiver coil face up
- Hold implant by neck
- Insert receiver coil into pocket, place transducer in recess
- Verify coil position matches skin marking
- Implant can be bent once, up to 30°

Sentio Surgery



Implant fixation

- The implant is then fixated through the use of the implant fixation bands.
- The placement of these bands can vary to ensure appropriate placement for each patient.

Sentio Surgery



Implant fixation

- Position of the band can be adjusted

Sentio Surgery



Closing the incision

- Close incision in layers
- Avoid contact with implant during suturing
- Clean incision area and apply dressing

Healing

- 2-6 weeks of soft tissue healing.
As soon as the tissue appears healthy, the processor can be fitted!





Sentio™ System

Feel it to believe it

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Because
sound matters