



## VIBRANT SOUNDBRIDGE VORP 503 Surgical Case Study: PD Dr. med. Henning Frenzel

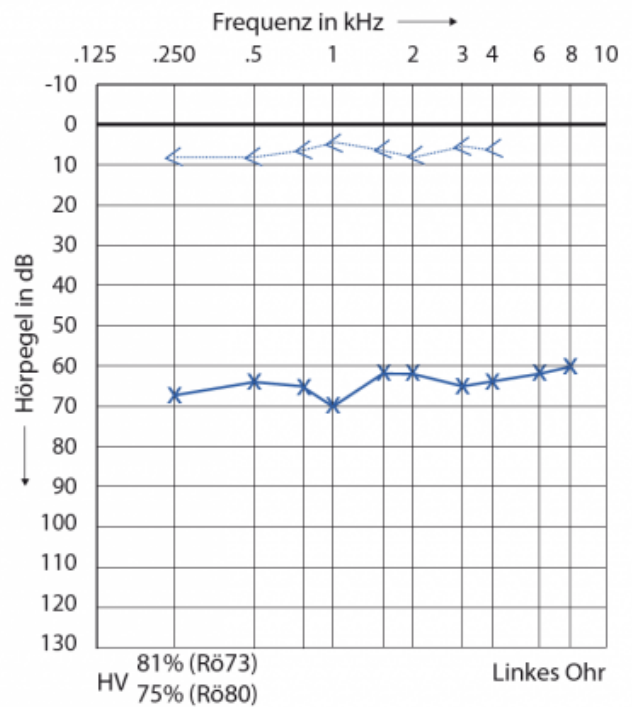
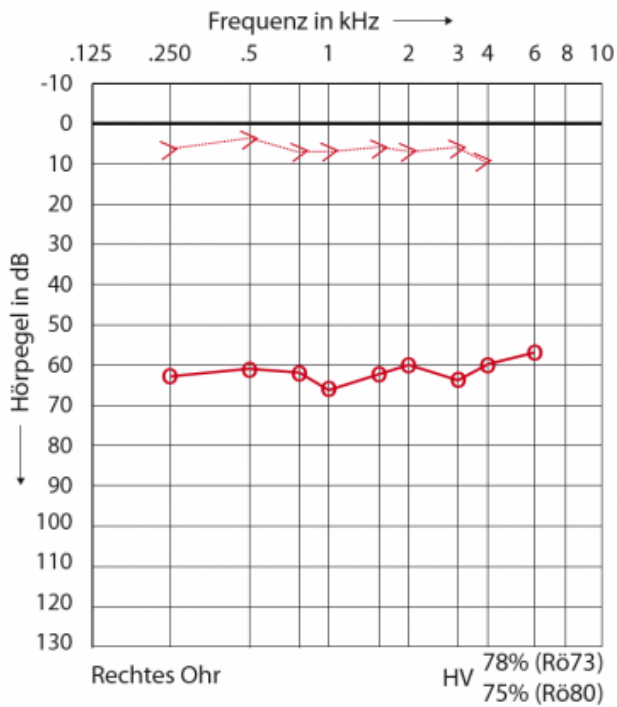
The *MED-EL Surgical Video Library* offers complete surgical case studies from leading ENT surgeons. Created in cooperation with *ARRI*, these high-resolution videos capture precise movements and detailed structures with incredible clarity. Access is free and the easy-to-use library is optimized for desktop or mobile viewing.

### Surgical Case Study: VIBRANT SOUNDBRIDGE Middle Ear Implant

Today, we're excited to share a great surgical case study. In this HD surgical video, **PD. Dr. med. Henning Frenzel** provides step-by-step guidance of his techniques for implanting the **VIBRANT SOUNDBRIDGE VORP 503 Middle Ear Implant**. Dr. Frenzel is an ENT and facial plastic surgeon at the ENT Center Lübeck, Germany. The video was recorded at his previous employer (University Hospital Schleswig-Holstein).

Dr. Frenzel narrates the video to provide detailed guidance through each step of the procedure. Together with the quality & clarity of the HD video, this case provides an excellent view of the middle ear structures, surgical landmarks, and surgical techniques. Dr. Frenzel takes care to demonstrate each anatomical landmark for this surgery and provides helpful additional insights to consider for future pinna reconstruction.

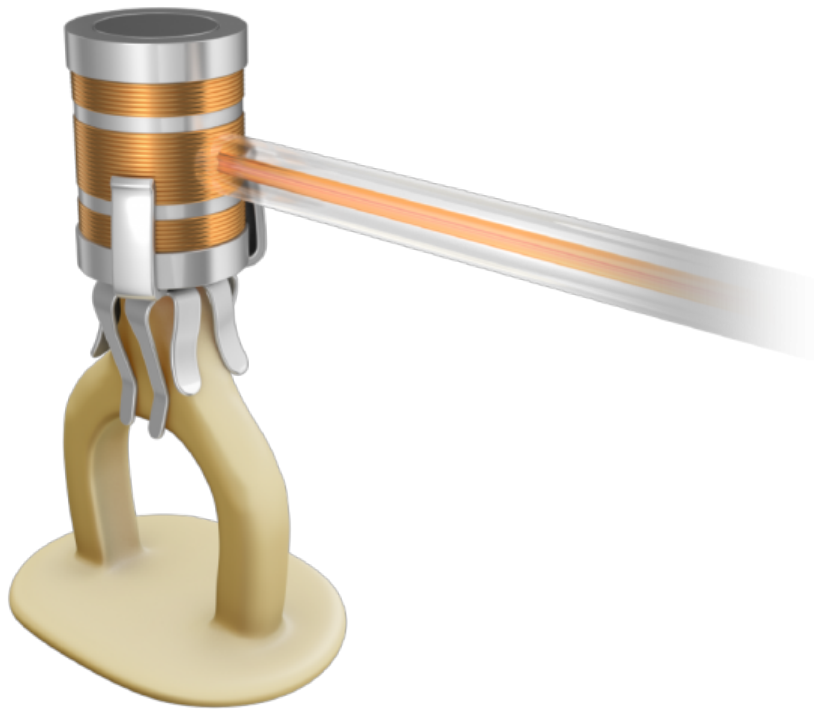
In this case, the patient is an 8-year-old girl with conductive hearing loss caused by bilateral microtia and atresia. She has used a bone conduction headband since birth.



Pre-operative audiogram shows severe bilateral conductive hearing loss. The VIBRANT SOUNDBRIDGE was chosen to provide a reliable, permanent solution for binaural hearing.

- Pediatric patient
- 8-year-old female
- Bilateral microtia and atresia
- Conductive hearing loss
- VIBRANT SOUNDBRIDGE VORP 503 Active Middle Ear Implant
- Vibroplasty-Clip-Coupler attached to head of stapes
- Sequential bilateral implantation
- Left ear implantation shown

For this patient, sequential bilateral VIBRANT SOUNDBRIDGE active middle ear implants were chosen to provide a permanent and reliable binaural hearing solution. Dr. Frenzel is utilizing the VIBRANT SOUNDBRIDGE with a Clip coupler to attach the FMT to the head of the stapes.



The *Vibroplasty-Clip-Coupler* provides a reliable and stable connection to the head of the stapes. The Floating Mass Transducer (FMT) directly vibrates the stapes to provide a natural sound quality.



Watch now: Dr. Henning Frenzel provides detailed guidance of his techniques for implanting the SOUNBRIDGE VORP 503 Middle Ear Implant. (15 minutes)

What to watch for:

- Analysis of pre-operative CT imaging:

- Showing normal stapes and cochlea
- Identifying slight abnormality of course of facial nerve
- Measuring distance between facial nerve and middle fossa to ensure sufficient operative corridor
- Detailed explanation of implant placement with regards to later pinna reconstruction
- Performing a single-step incision to accommodate pinna reconstruction
- Using temporal mandibular joint as surgical landmark
- Identifying tegmen of the mastoid
- Identifying lateral semi-circular canal
- Identifying short process of malformed malleus-incus complex
- Determining position of facial nerve
- Removing inner atresia plate
- Identifying short and long processes of the incus
- Head of stapes
- Removing connection between stapes and malleus/incus complex
- Drilling bone bed
- Attaching the CliP Coupler to the FMT using bone wax
- Placement and fixation of implant using self-drilling screws
- Attaching CliP Coupler onto head of stapes
- Sealing cavity with plate of bone dust
- Layered wound closure

## **Subscribe & Share**

Ready to learn more about VIBRANT SOUNDBRIDGE? See how we worked with surgeons to [optimize the surgical handling, performance, and reliability](#) of the VORP 503.

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*\*Not all products, indications, and features shown are available in all areas. Please contact your local MED-EL representative for more information.*