



**MED-EL Mission**

To overcome hearing loss as a barrier to communication and quality of life.

We effectively yet gently restore hearing by offering a comprehensive set of intact-skin hearing implant solutions.

We thus provide best benefit to individuals with a hearing loss - today, tomorrow, worldwide.

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**THIS IS WHY.**

**OUR BROAD PORTFOLIO OF PRODUCTS ENSURES A HEARING IMPLANT SOLUTION TO FIT EACH CANDIDATE'S UNIQUE HEARING LOSS.**

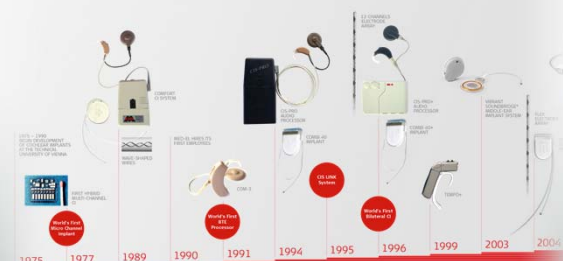
INGEBORG HOCHMAIR CEO, MED-EL



Dr. Ingeborg Hochmair  
MED-EL's CEO and Chief Engineer

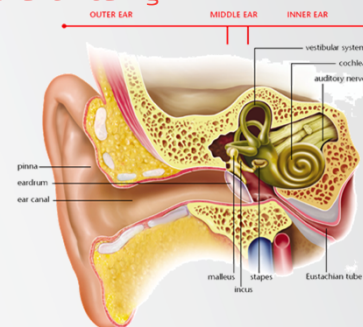
**Product Innovation History**

Products shown may not be available in all countries. Indications may vary by country.



**The Ear and Hearing**

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### Type of Hearing Loss

**Conductive:**

- Problem with the ear canal, ear drum, or middle ear
- Sound can not reach the cochlea
  - Cochlea is healthy
- Solutions typically include:
  - Medical or surgical treatment
    - BONEBRIDGE
  - Hearing aids
    - Conventional hearing aids
    - ADHEAR



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### Type of Hearing Loss

**Sensorineural:**

- Problem lies in inner ear
  - Cochlea/auditory nerve
  - Sound reaches cochlea, but it can not respond normally
- Solutions:
  - Hearing aids
  - Cochlear implants



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### Type of Hearing Loss

**Mixed:**

- Both sensorineural and conductive hearing loss
- Solutions:
  - Hearing aids
  - Surgery
    - BONEBRIDGE
  - Combination of surgery and hearing aids



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Cochlear Implant      Electric Acoustic Stimulation

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RONDO 2

### It's Never Been Easier™




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### How a Cochlear Implant Works

The audio processor microphone picks up sounds from the environment

Processor turns sound into a code that the implant understands

Coil transmits this code across the skin to the electrode array



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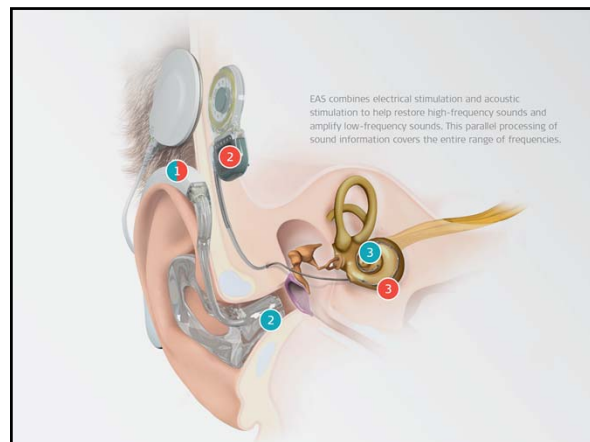
### How a Cochlear Implant Works

When an electrode is stimulated, the hearing nerve fibers relay that signal to the brain.

The brain recognizes these signals as sound.

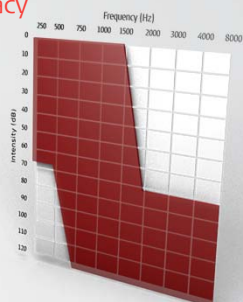


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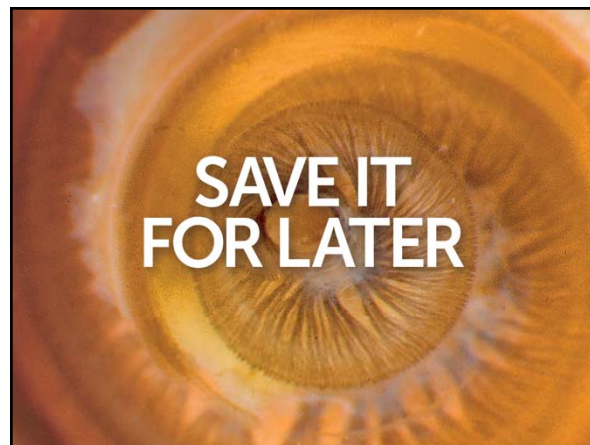
### SYNCHRONY EAS Candidacy

- FDA approved for candidates age 18+
- EAS candidates have normal hearing up to a moderate sensorineural hearing loss in the low frequencies, sloping to a severe-to-profound hearing loss in the high frequencies
- Single-word speech understanding scores are less than 60% in each ear (i.e., CNC words in quiet)



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### Softest, Most Flexible Electrodes



#### FLEX Tip Technology

The flex tip of the electrode array is designed for atraumatic insertion and protection of the delicate neural structures of the cochlea.

#### Wave-shaped Wires

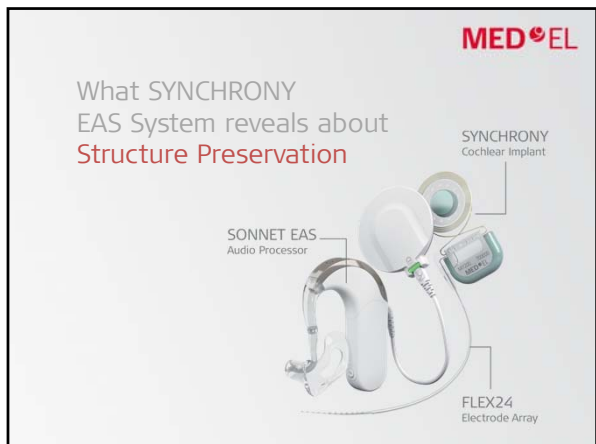
Wavy instead of straight, the wires of the electrode array are particularly soft and flexible.

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### WHY DOES STRUCTURE PRESERVATION MATTER?

- PEACE OF MIND!!!
- Optimal hearing performance
- Benefit from future technologies
- Benefit from future therapies
- Maintaining residual hearing

Stem Cells



**THIS IS WHY.**

**MED-EL REMAINS THE FRONTRUNNER IN COCHLEAR IMPLANT INNOVATIONS AND SAFETY.**

HAROLD PILLSBURY MD SURGEON

The text is displayed on a black background with a red header. The text "THIS IS WHY." is in white. The text "MED-EL REMAINS THE FRONTRUNNER IN COCHLEAR IMPLANT INNOVATIONS AND SAFETY." is in white. The text "HAROLD PILLSBURY MD SURGEON" is in white.

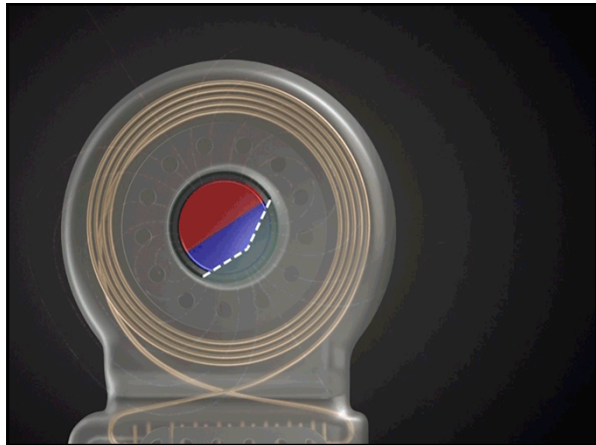



**MRI Scans**  
With MED-EL SYNCHRONY


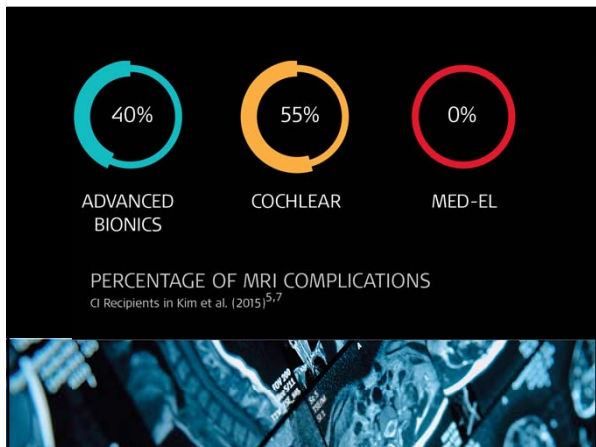
First cochlear implant brand  
FDA-approved for MRI at 3.0 Tesla  
without requiring additional surgery  
to remove the magnet.

## A Turning Point in Technology


Featuring a Game-Changing  
Magnet Design

In a recent study reviewing MRIs and cochlear implants, MED-EL recipients were the only group of cochlear implant recipients able to complete MRIs without pain, discomfort, or complications.

**MRI Scans**  
With MED-EL SYNCHRONY



Plan MRI. → Perform the MRI scan.

The MRI is a routine procedure, and MED-EL patients can go back to using their audio processor right away.

 **MRI Scans**  
With MED-EL SYNCHRONY

No Surgery  
No Discomfort  
No Hearing Downtime




Wireless • Bluetooth • Multi-Connectivity

 **ROGER PEN**



This sleek wireless microphone helps deliver speech understanding in noise and over distance.

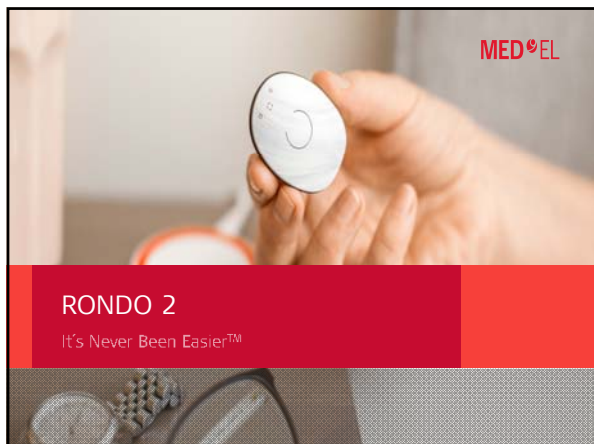
 **ROGER 21**



The receiver is integrated into a special battery cover for the SONNET.

It functions when paired with the Roger Pen (or other Roger-compatible streamers).





RONDO 2

### The Idea is Simple

- RONDO 2 is MED-EL's **second generation** single-unit processor
- It is based on experience and feedback with **RONDO**, the **world's first** single-unit processor
- What does feedback tell us...

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### The Design is Simple


- What matters *most* is simplicity
- Top 3 categories:
  - Design & ease of use
  - Battery options & handling
  - Accessories & patient kit options

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RONDO 2

### Hands-Free Control


- One-touch activation
  - Press button to turn on/off
  - ASM adapts to listening environments
  - Use FineTuner to change settings/programs



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### All-Day Hearing

- Up to 18 hours of battery life
- No changing batteries
- No interruptions



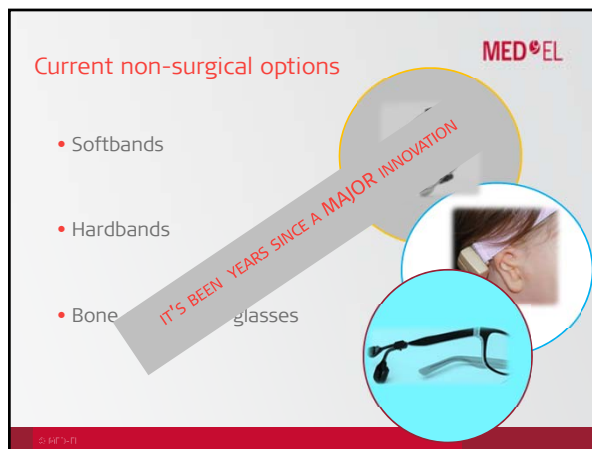
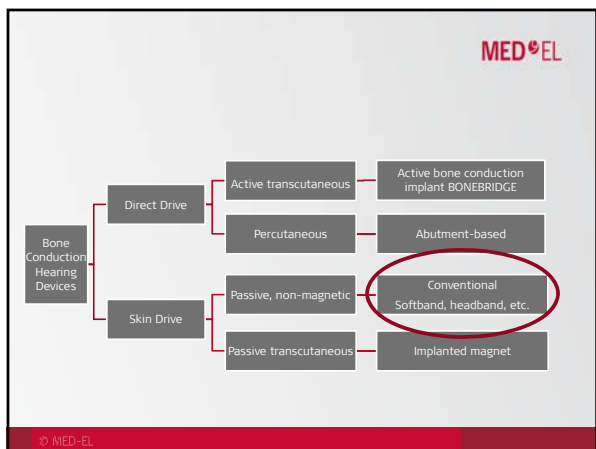
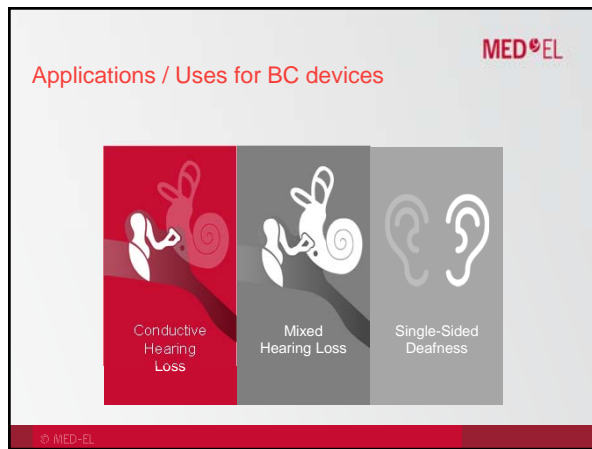
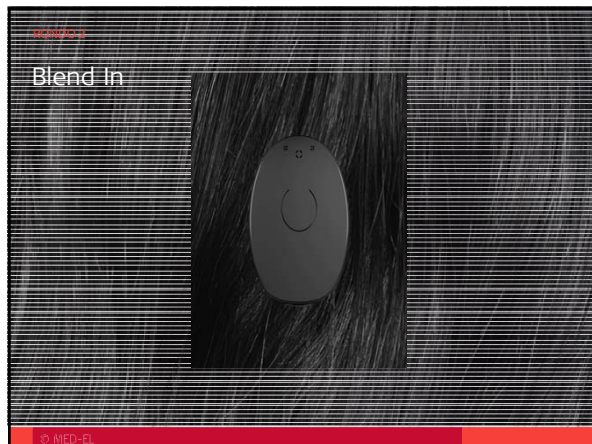
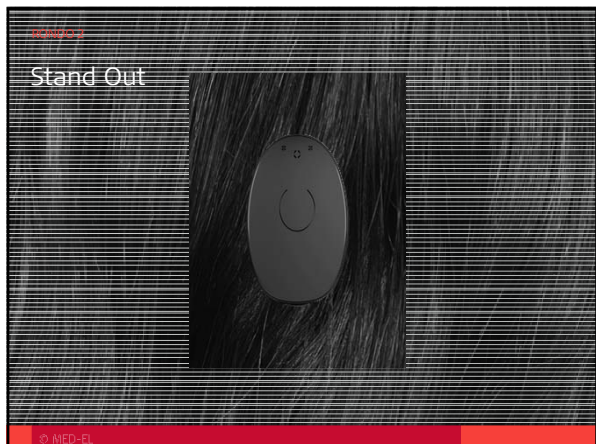
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### Modern Design

- Thin, sleek design
- 17% lighter
- More than 30 stylish colors & designs available



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Category review: MED<sup>o</sup>EL

### Challenges with conventional BC options

**DISCOMFORT**


**RELIABILITY ISSUES**

**POOR COSMETIC APPEAL**


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### Impact of discomfort, reliability issues, and poor cosmetic appeal



Limited daily wear-time



Rush to a more permanent solution



Some patients are lost to follow up – Simply walk away

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### We need a better option


- EASIER
- MORE COMFORTABLE
- MORE RELIABLE
- BETTER COSMETICS
- SUITABLE FOR ALL AGES



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### ADHEAR

- ✓ More comfortable
- ✓ More reliable
- ✓ More appealing
- ✓ Easier
- ✓ Non-Surgical
- ✓ For all ages and stages



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### ADHEAR: redefines a category

Bone Conduction Hearing Devices

Direct Drive

Active transcutaneous

Percutaneous

Active bone conduction implant\*

Abutment-based

Skin Drive

Passive, non-magnetic

Passive transcutaneous

**ADHEAR**  
 Stick. Click. Hear

Implanted magnet

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### What is the ADHEAR System?

Adhesive Adapter






Audio Processor




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Overview MED<sup>EL</sup>

### Symmetrical Design

Right-worn
Left-worn

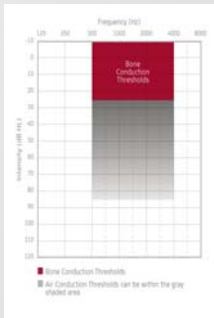
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### Candidacy

#### Indications

- Conductive hearing loss
  - unilateral or bilateral, chronic or temporary
- Single-sided deafness
- No age limits

#### Conductive Hearing Loss



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It's as easy as:

### Stick. Click. Hear.

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**ADHEAR is easy**

- Non-surgical
- Simple handling

**ADHEAR is gentle**


- No pressure on skin
- Unparalleled wearing comfort

**ADHEAR is reliable**

- Stays in optimal position
- Offers consistent access to sound

**ADHEAR is cosmetically appealing**

- Inconspicuous position behind the ear



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### Training on ADHEAR


#### Topics

- Innovation of ADHEAR
- Device & settings
- Software configuration tool
- Connectivity & accessories
- Demonstrating ADHEAR
- Orientation for your patients

#### Resources

- Website: [www.medel.com/us/adhear](http://www.medel.com/us/adhear)
- AudiologyOnline
- In-House Audiology
- Regional Training Events: [www.stickclickhear.com](http://www.stickclickhear.com)
  - Atlanta 10/10
  - Durham, NC 10/25

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## BONEBRIDGE

Introduction to an active transcutaneous bone conduction device

Name of Event

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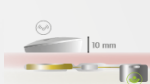
### Active vs. Passive Bone Conduction Devices

Vibration through the skin		Vibration directly to bone	
Fixed from outside	Fixed by implanted magnet	Percutaneous (Permanent Wound)	Transcutaneous (Intact skin)
Hearing Glasses, BC-Headband	Passive transcutaneous BC-system	Bone Anchored Hearing Aids	Bone Conduction Implant (Active, transcutaneous)
			

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## The Difference Between Active and Passive

**BONEBRIDGE**  
ACTIVE, TRANSCUTANEOUS  
bone conduction implant



The vibrations are generated by the implant and transferred completely to the bone. This results in good hearing outcomes!

**PASSIVE TRANSCUTANEOUS**  
bone conduction implants



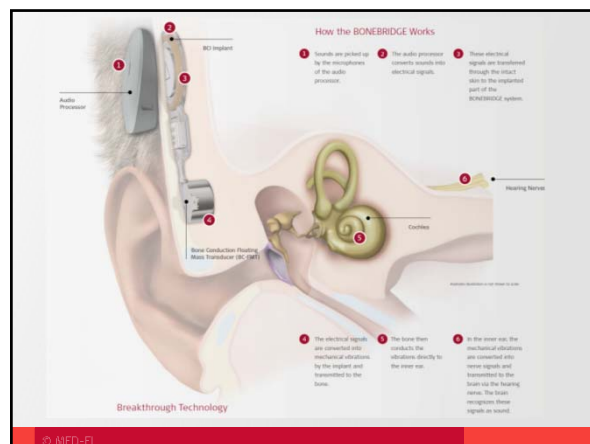
Vibrations are generated by the audio processor and attenuated by skin and other tissue. The hearing outcomes are thereby reduced.

**PERCUTANEOUS** bone  
conduction implants



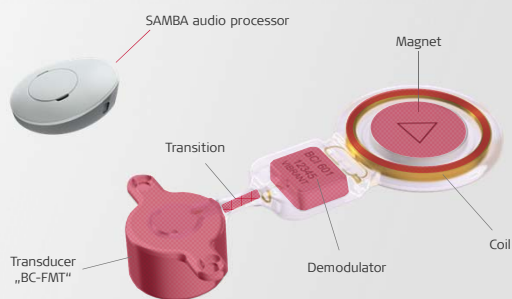
The vibrations are generated by the audio processor and transferred to the bone via the screw.

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## BONEBRIDGE System



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## SAMBA Audio Processor



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## SAMBA Audio Processor



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## SAMBA Audio Processor Covers



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### Connectivity with the SIEMENS miniTEK



#### Possible connections

- Bluetooth enabled devices
- DAI
- FM Systems
- Telecoil

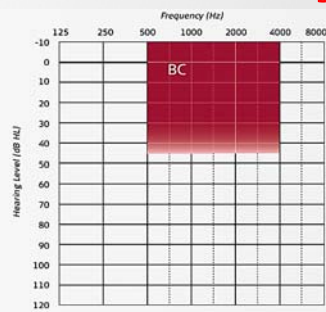
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### Who is a Candidate

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#### Indications

### Conductive/ Mixed Hearing Loss



12 years old and above

Stable BC thresholds within the shaded area (as shown in diagram)

Air Bone Gap > 30dB

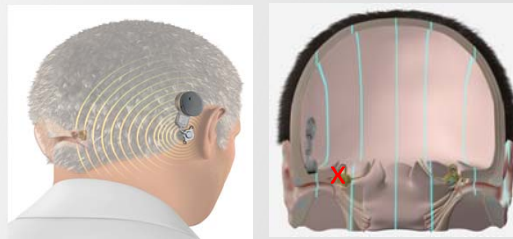
Anatomy that allows for appropriate placement of the device as determined by CT scan

Absence of retro-cochlear and central auditory disorders

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### BONEBRIDGE in SSD

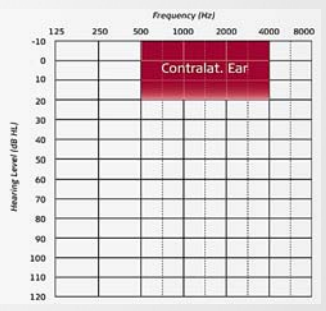
- BONEBRIDGE implanted on the deaf side
- Stimulation of the contralateral inner ear (cochlea)



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#### Indications

### Single-sided deafness



12 years and above

Single-sided sensorineural deafness

- Air conduction thresholds in the contralateral ear should be equal to or better than the shaded area in the diagram

Anatomy that allows for appropriate placement of the device as determined by CT scan

Absence of retro-cochlear and central auditory disorders

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### Advantages


- Active implant (direct drive bone conduction)
  - Does not require skin pressure
- Transcutaneous
  - No permanent wound care
  - Low complication rate
- Osseo-integration not required for fitting



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### Advantages

- Published and presented clinical experience show significant improvement in speech recognition in quiet and in noise
- Audio processor has a low profile - discrete
- Compatible with newest AP technology



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### Candidacy Criteria

Hearing implant solutions for a wide range of indications & all ages

**SYNCHRONY**  
Cochlear Implant System



**SYNCHRONY EAS**  
Hearing Implant System



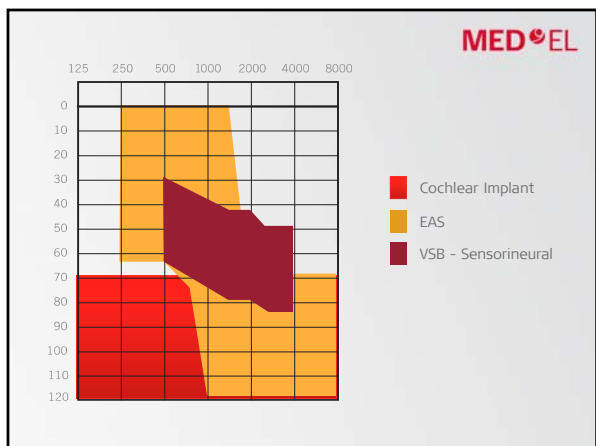
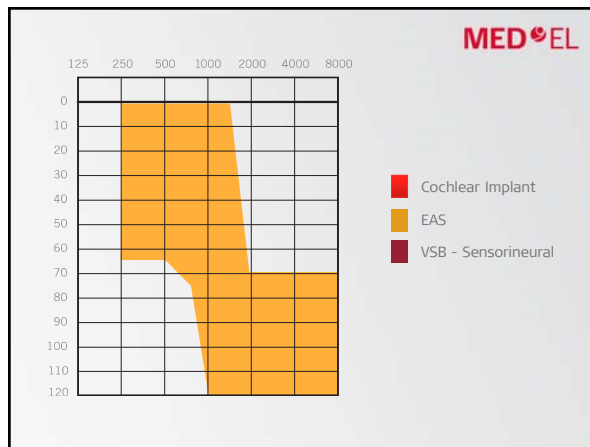
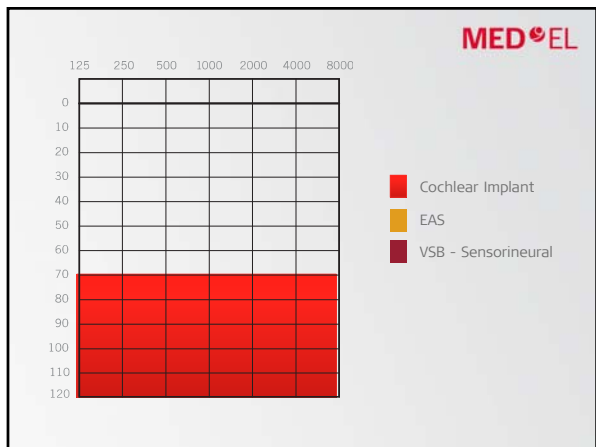
**BONEBRIDGE®**  
Bone Conduction Implant System

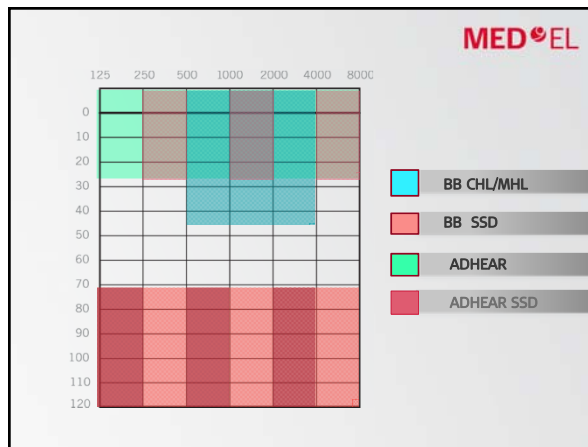
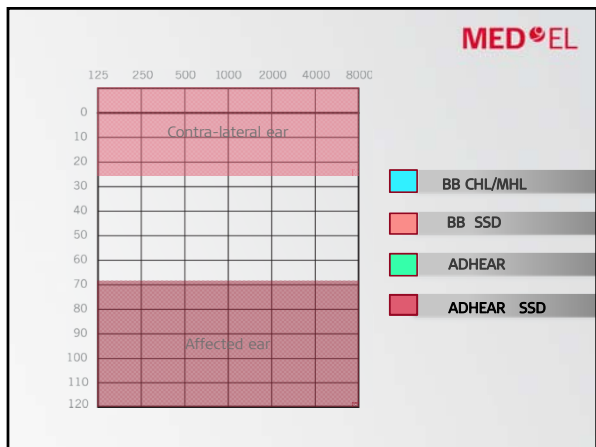
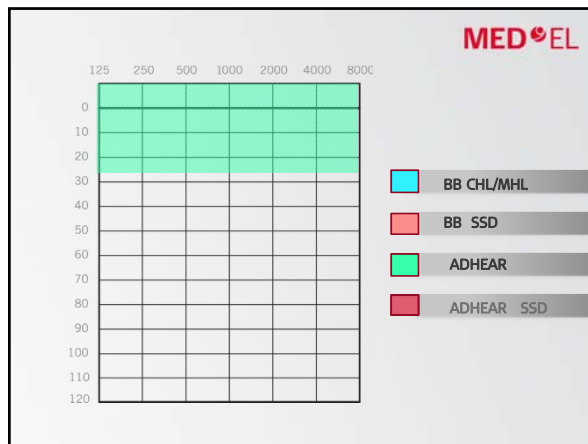
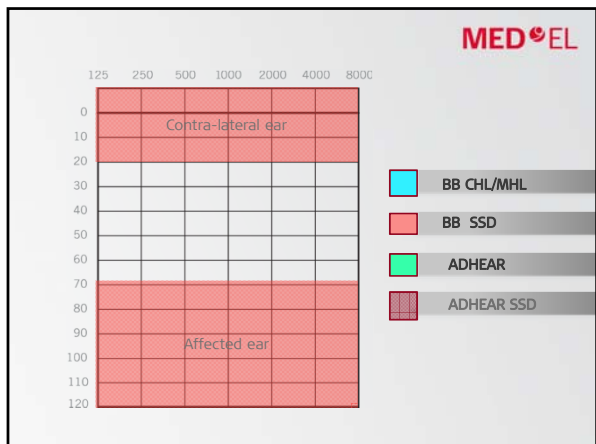


**VIBRANT SOUNDBRIDGE®**  
Middle Ear Implant System



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HearPeers

MED-EL Events

- Hands on Hearing
- MED-EL Open Houses
- MED-EL Meetups
- MED-EL Professional Workshops
- MED-EL Mingles



**OPEN HOUSE**

**MED-EL NASHVILLE, TN**

Schedule an individual appointment with MED-EL representatives to have your unique questions answered and needs addressed. APPOINTMENTS ARE REQUIRED.

**JOIN US!** We're hosting an interactive Open House designed specifically for MED-EL recipients and candidates. Come at your convenience to troubleshoot your devices, receive product updates and learn about clinic facilities near you.



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*Upcoming Events*

**MED-EL MEMPHIS - CHATTANOOGA - KNOXVILLE**

MED-EL is committed to supporting our candidates, recipients and their families.



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