FOR PROFESSIONALS

A gem for a gem

Introducing the Cochlear™ Baha® BP100 Sound Processor

A BONE CONDUCTION HEARING SOLUTION

Hear now. And always

Cochlear™

ANNIE HAMMARVID
Baha user, age 6
Gothenburg, Sweden

Baha redefined

The new Cochlear™ Baha® BP100 sound processor

- **Better access to speech**
- **Designed for children**
- **Child-focused fitting tools**

Give children the first truly dedicated direct bone conduction sound processor and let them experience more than 25% improved speech understanding in noise*.

Children will receive **better access to speech** in their challenging sound environments with the advanced signal processing systems. Easy to monitor LED indicators and tamper-proof features - specifically **designed for children** – let parents and caregivers know the child is always getting the required amplification.

The BP100's **child-focused fitting tools**, included in the new Cochlear Baha Fitting Software, let you match the processor to the child's hearing loss profile for a precision fit. The unique BC Direct feature within the Fitting Software lets you measure the child's bone conduction thresholds directly through the BP100.

Surgeons and audiologists, and parents familiar with Baha told us what they consider most important for children, and like a diamond transformed from coal, we reengineered every function and every component of this next generation of Baha sound processors. Children will experience improved hearing performance with the market's most advanced implantable bone conduction hearing solution. It's the crystal clear choice for children with conductive hearing loss, mixed hearing loss or single-sided sensorineural deafness (SSD).

* See page 5

Better access to speech

Children with a hearing loss need the best possible access to speech at all times. A direct bone conduction hearing system delivers unmatched audibility and sound clarity to children having conductive hearing loss, mixed hearing loss, or single-sided sensorineural deafness (SSD).

IMPROVED AUDIBILITY FOR CHILDREN

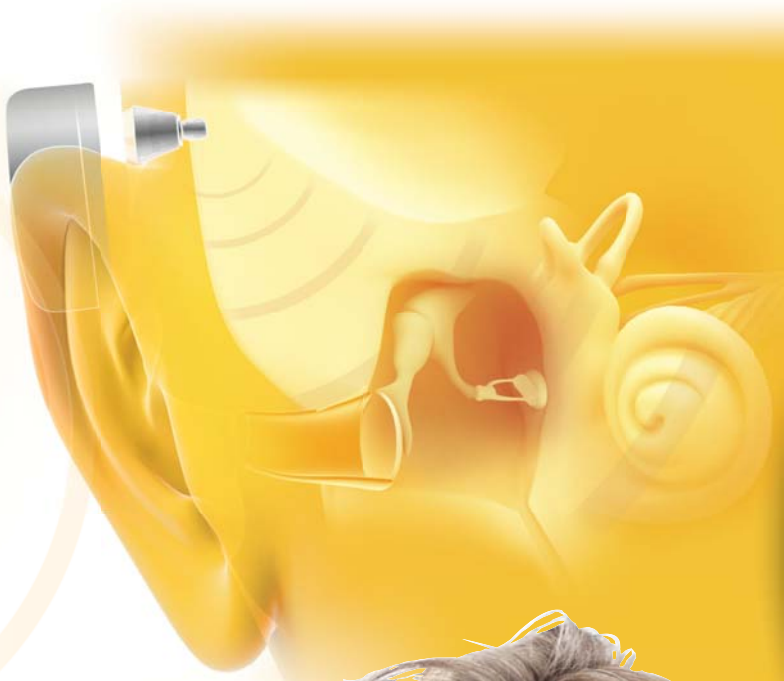
The new Cochlear Baha BP100 uses the body's natural ability to conduct sound via bone conduction. It bypasses the child's conductive roadblock and sends sound directly to the cochlea without the need for ear moulds that may cause irritation and soreness to small ears. Studies show that direct bone conduction provides improved audibility when the conductive component of a hearing loss is greater than 30 dB [1].

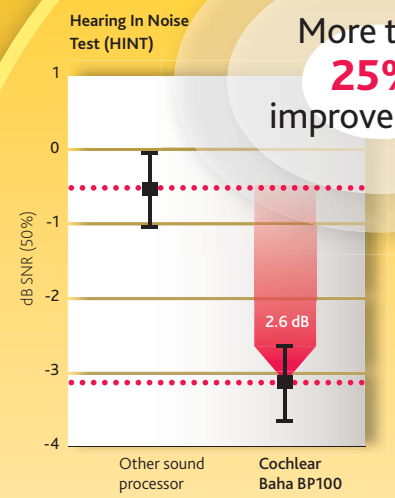
THE BAHA BP100 DIFFERENCE

The BP100 is the first direct bone conduction device to include an advanced automatic signal processing system and dedicated amplification strategies for conductive loss, mixed loss, and SSD. It uses multiple adjustable channels to support a more precise fitting and shape the signal to match the child's individual hearing loss. The result is maximized audibility and better access to speech, which will support language development and speech acquisition.

MANAGING FEEDBACK

While bone conduction hearing gives the child access to the full range of speech sounds, feedback needs to be avoided to preserve audibility and listening comfort. When there is a risk of feedback, the BP100's advanced automatic feedback management system uses phase cancellation to limit whistling without having to reduce gain. Children can wear hats, give hugs and play all day without the worries of feedback.





Clinical data verifies the improved hearing performance of Cochlear Baha BP100 over other direct bone conduction sound processors. Using the internationally recognised Hearing In Noise Test (HINT), the Baha BP100 provided an average of 2.6 dB increased SNR compared to the previous sound processor [2]. Clinically, this corresponds to more than 25% improvement in speech understanding in noise [3].

"I feel safe knowing that Annie can hear the sounds around her while she plays. With her Baha, she can hear car traffic, barking dogs as well as her teacher's voice from across the playground."

ANNIE HAMMARVID'S MOTHER
Gothenburg, Sweden

1 Snik AF, Mylanus EA, Proops DW, et al. Consensus statements on the BAHA system: where do we stand at present? The Annals of Otology, Rhinology & Laryngology 2005;195:2-12.

2 Flynn, M., Sadeghi, A. & Halvarsson, G. Results of the first clinical evaluation of Cochlear Baha BP100 white paper. Cochlear Bone Anchored Solutions, 2009.

3 17.9%/dB as reported in Hällgren M, Larsby B, Arlinger S. A Swedish version of the Hearing In Noise Test (HINT) for measurement of speech recognition. International Journal of Audiology 2006;45:227-37.

Designed for kids

Active children place high demands on their hearing solutions and the Cochlear Baha BP100 has child-friendly features designed to meet those tough challenges.

To protect against bumps and drops, the processor case is made from impact-resistant plastic. This same case has been moisture-proofed to keep water and dirt from disturbing the sound processor's intricate workings.

To safeguard the BP100's settings from curious fingers, a keylock for settings and a tamper-proof battery door have been added. For family and caregivers, visual indicators display the processor's status. And to make sure the BP100 isn't the last thing left on the playground, a safety line attaches it to a dress or sweater.

Now children of all ages can play all day without compromising their audibility.

KEYLOCK stops accidental switch offs or surprising level changes by locking the volume, on/off and programme change buttons.

VISUAL INDICATORS (LEDs) give parents and caregivers confirmation of the processor's settings and status. Flashing LEDs alert for low battery.

The optional **TAMPER-PROOF** door keeps the battery from being accidentally removed or dislodged.

The standard **EUROPLUG CONNECTOR** allows easy integration with FM solutions from major suppliers.

BAHA SOFTBAND-compatibility for infants and toddlers. *

The **SAFETY LINE** secures the BP100 to the child's clothing to prevent it from being lost during fun and games.

The BP100's **WATER-RESISTANT HOUSING** resists moisture and dirt to give children consistent and high-quality amplification in the rough and tumble of their day to day life.

Designed in six **DIFFERENT COLOURS**, the sound processor blends naturally with the child's hair for discretion.

* The Baha implant is FDA approved for children over the age of five.

Child-focused fitting tools

Precision fitting tools let you give the child immediate and better access to speech.

The new **Cochlear Baha Fitting Software** gives you better fitting precision to match the child's hearing loss profile, which in turn enables them to maximize their audibility and increase access to speech. Based on the child's audiogram or BC Direct measurements, the Fitting Software prescription determines the correct amounts of amplification for each channel. To further match the individual hearing needs of the child, additional fine tuning is available across ten audiometric frequencies.

NOAH-COMPATIBLE

Cochlear Baha Fitting Software is NOAH-compatible or fully operational in stand-alone mode. The Fitting Software is designed to follow a natural fitting process and it contains all the functionality needed to allow a complete and exact fitting.

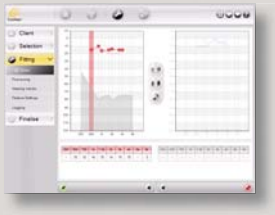
OTHER FITTING OPTIONS

Two other straightforward BP100 sound processor fitting options are available to get the child connected to sound:

Ready to wear, the Cochlear Baha BP100 is preconfigured to provide amplification benefits for many children. Simply attach the processor and turn it on.

In a few minutes, **button programming** lets you effectively configure the sound processor basics without needing a computer. The three programming buttons on the top of the BP100 allow you to easily set key parameters while the front's visual indicators (LEDs) confirm the new settings to let you know when the BP100 is ready to use.

BC DIRECT



BC Direct, an exclusive Cochlear Baha Fitting Software feature, uses the BP100 to generate pure-tones to accurately measure the child's thresholds. This gives a more accurate measurement than conventional bone conduction audiometry, to enable a more individualised fitting for the child. For younger children, BC Direct can be combined with standard Visual Reinforcement Audiometry (VRA) and Conditioned Play Audiometry.

DATA LOGGING

Data logging gives you important information that lets you review the child's sound processor usage patterns since the last saved session. This information facilitates understanding of how the child uses the BP100 and allows you to counsel the child and parents to optimise the use of the BP100. Logged events include average hours of use per day, percentage use for each program, and use of the volume control.

FEATURE SETTINGS

For younger children, you may find it appropriate to limit the settings of the automatic systems. When the child is older all systems can be turned on again.

The sparkling truth

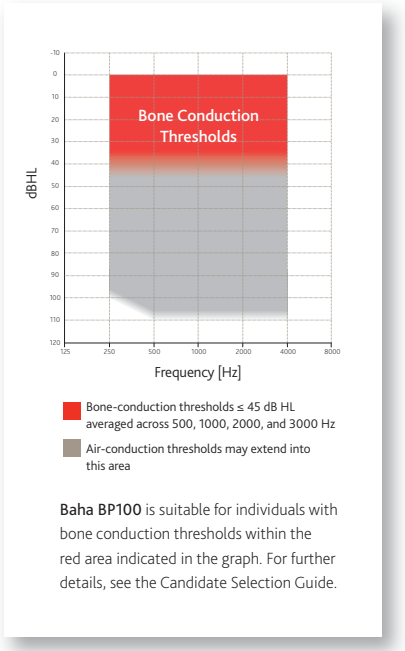
Worn by thousands of children and adults worldwide, the Cochlear Baha bone conduction hearing solution is a well-proven, clinically-tested and documented hearing care system and the solution of choice for children with conductive hearing loss, mixed hearing loss, or SSD.

PROCESSOR ABUTMENT IMPLANT

Studies show that when the conductive component of any hearing loss is greater than 30 dB, Baha should be the amplification method of choice.[4, 5] A recent evaluation of a leading paediatric Baha program proved Baha to be an effective means of hearing rehabilitation that also improves the overall quality of life of children.[6]

The Baha bone conduction hearing solution has three components:

1. A sound **PROCESSOR** picks up sound vibrations.
2. A connecting **ABUTMENT** transfers the amplified sound into mechanical vibrations from the Baha sound processor to the implant.
3. A small titanium **IMPLANT** is placed in the bone behind the ear, where it grows together (osseointegrates) with the living bone. This implant transfers the sound vibrations directly to the cochlea via bone conduction. Osseointegration has been used for reconstructive surgery, dental implants and Baha with great success for more than 30 years.



Baha BP100 is suitable for individuals with bone conduction thresholds within the red area indicated in the graph. For further details, see the Candidate Selection Guide.

The implant surgery is a simple paediatric procedure. Children are able to resume their normal routines within a few days. Unlike many types of ear surgery, there is no risk of further damage to their hearing. Aside from routine checkups, aftercare consists of maintaining a clean implant area and ensuring that the sound processor is kept dry.

Contact details for Baha clinics can be found on www.cochlear.com or from your local Cochlear office.

4 Snik AF, Mylanus EA, Proops DW, et al. Consensus statements on the BAHA system: where do we stand at present? The Annals of Otology, Rhinology & Laryngology 2005;195:2-12.
5 Hol MK, Snik AF, Mylanus EA, Cremers CW. Longterm results of bone-anchored hearing aid recipients who had previously used air-conduction hearing aids. Archives of Otolgaryngology-Head & Neck Surgery 2005;131 (4): 321-5
6 McDermott A, Williams J, Kuo M, Reid A, Proops DW. The Birmingham Pediatric Bone-Anchored Hearing Aid Program: A 15-Year Experience. Otology & Neurotology 2009; 30(2):178-183

"I used to ask people constantly to repeat themselves, but now with my Baha this is no longer a problem. It helps me most at school. I can recognise voices better, even if I do not see the person."

Seraphine Schutz ▼

▲ Alyssa Marin's parents

"When they tried on a Baha® Softband, her face lit up. She couldn't believe that she was hearing. So we talked to Alyssa about the Baha surgery. Compared to other surgical procedures, the Baha surgery was not that major. It's a quality of life issue. She can hear like we all hear. "

"Annie loves her Baha. It is the first thing she brings us in the morning to put on and the last thing she wants to take off before bedtime. Annie doesn't want to spend one minute without her Baha.

Annie Hammarvid's mother ▼

Gems for life...

Cochlear™

The Cochlear™ Promise

As a global leader in hearing solutions, Cochlear is dedicated to bringing the gift of sound to people all over the world. With our hearing systems, Cochlear has reconnected over 164,000 people to their families, friends and communities in more than 70 countries.

The Baha system provides a natural pathway to hearing and is a simple and effective hearing solution for many types of hearing loss. With this pioneering system, more people can experience the wonderful world of sound.

For patients receiving any Cochlear hearing system, our commitment is that for the rest of your life we will be here to support you.

Hear now. And always

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MAY09. Printed in Sweden.

E81465