

# Bone Conduction Hearing Aid

## Resources:



What is a BAHA/BAHS?



ADHEAR (MED-EL brand)



<u>Baha Start</u> (Cochlear brand)



Bone Anchored
Systems
(Oticon brand)

A Bone Conduction Hearing Aid (BCHA) is a specialized device designed to help children with hearing loss. Unlike traditional hearing aids, bone conduction devices transmit sound vibrations directly to the inner ear through the bones of the skull. There are several different manufacturers and types of Bone Conduction Hearing Systems (BCHS). A BCHA may be beneficial for children with conductive, mixed, or unilateral hearing loss. Special note: a "BAHA" refers to a specific brand of a Bone Conduction Hearing Aid. The three BCHA brands available are Adhear, Cochlear and Oticon.

#### **How Does it Work?**

 BCHAs pick up the sound through a microphone. The sound vibrations are sent through the skull directly to the cochlea (inner ear), bypassing the ear canal. The cochlea interprets the sound signals then the brain processes the sound.

## Some Advantages of BCHA

- User adjustable band to balance comfort/hearing.
- The adjustable hand grows with your child and will only need to be replaced as the bands elastic wears out.
- No pressure against the skin or skull.
- No risk of sound quality being dampened by humidity or earwax build up, which can occur with ear molds.

### **BCHA Device Options for Children**

- **Nonsurgical devices:** Either worn on a headband or attached to the skin with adhesive.
  - Softband BCHA: These are suitable for infants and young children.
     They consist of a hearing aid attached to a soft, adjustable headband.
     This design ensures comfort and flexibility as your child grows.
  - Headset-Style BCHA: Ideal for older children who can handle a more discreet device. These hearing aids are worn like a traditional headset, offering better stability and sound clarity.
- **Surgical Devices:** Include an internal component and an external processor.
  - Implantable Bone Conduction Devices: For children with more complex hearing needs, surgical options for Bone-Anchored Hearing Systems (BAHS), such as the Bone Anchored Hearing Aid (BAHA) can be considered. These devices are implanted beneath the skin and offer clear sound.

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