

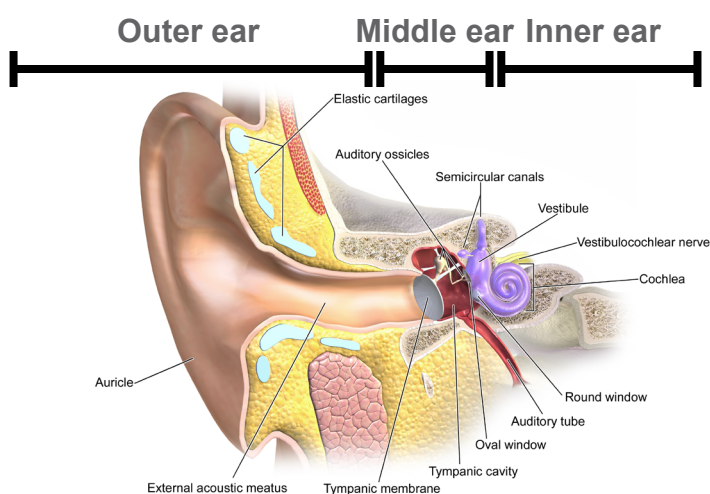
## Patient information factsheet

# Using a soft band bone conduction hearing aid

We have written this factsheet to give you more information about using a soft band bone conduction hearing aid. It explains what a soft band bone conduction hearing aid is and how your child should wear it. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please speak to a member of our team.

### Conductive hearing loss

The ear is made up of three sections: the outer, middle and inner ear. In a normal ear, sound waves produce vibrations of the eardrum, and are transmitted to the inner ear by a series of three bones (the ossicular chain). The inner ear converts these vibrations into electrical impulses which travel along the nerves to the brain. A conductive hearing loss occurs when there is a problem in the outer or middle ear, which prevents the sound from being sent properly to the inner ear.



### Glue ear

The middle ear is a cavity which is usually filled with air. Air enters the middle ear through a narrow tube called the Eustachian tube, which connects to the back of the nose (near the adenoids). Sometimes the Eustachian tube does not work correctly and fluid collects in the middle ear. This is called glue ear. This glue ear can stop the three small bones (ossicular chain) and eardrum from moving as freely as they normally would.

### Bone conduction hearing aids

Bone conduction hearing aids can help with conductive hearing losses, when conventional earmould and behind-the-ear aids are not appropriate (for example if your child has frequent ear infections, or if the shape of your child's ear prevents an earmould or a hearing aid from fitting well). Some children may also be reluctant to wear hearing aids that fit inside and over their ears, and may constantly pull them out.

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A bone conduction hearing device (BCHD) works by transmitting sound vibrations through the bone. The hearing aid changes the sound picked up by its microphone into vibrations. The bone conductor then sends the vibrations through the bones of the skull to the inner ear.

## Parts of the device



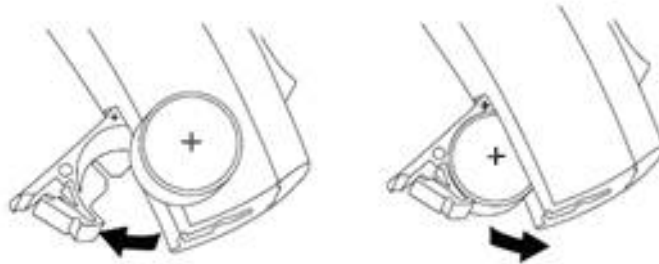
Hearing aid

Soft band with adjustable strap

Bone conductor

## Switching on the device

1. Open the battery door.
2. Insert the battery so that you see the + symbol on the battery.
3. Close the battery drawer and the aid will turn on.



## Fitting the device

Place the soft band around your child's head with the front section across the top of their forehead and the back section (with the adjustable strap) around the base of their skull.

The bone conductor should sit on the bone behind your child's ear to ensure the best sound reaches their ear. It does not usually matter which side the bone conductor is on, but if it does, we will tell you which way round your child should wear it.

## Tamper-resistant feature

To keep the battery out of reach of children, the device is fitted with a tamper-resistant battery drawer.



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- Use the tool provided with the device to turn the lock:  
vertical = unlocked  
horizontal = locked
- Use the same tool to open the battery door as shown in the diagram on the previous page.

## How to check the device is working

To check whether the aid is working, you should:

1. Switch the aid on.
2. Place the bone conductor on the bone behind your ear. Make some sound next to the hearing aid by tapping or stroking the aid. You should be able to hear the noise, although it might not sound very loud.
3. Or you can press the bone conductor onto a hard surface. You should be able to hear the aid making a noise.

If the aid does not seem to be working, try changing the battery. We recommend you change the battery on the same day each week to ensure the aid is always working while your child is wearing it. If you have any concerns about the working of the aid, please contact us.

## Contact us

If you have any questions or concerns, please contact us.

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## Useful links

[www.ndcs.org.uk/information-and-support/childhood-deafness/hearing-implants/bone-conduction-hearing-devices/devices-worn-on-a-headband](http://www.ndcs.org.uk/information-and-support/childhood-deafness/hearing-implants/bone-conduction-hearing-devices/devices-worn-on-a-headband)

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit [\*\*www.uhs.nhs.uk/additionalsupport\*\*](http://www.uhs.nhs.uk/additionalsupport)