

Bone Anchored Hearing System

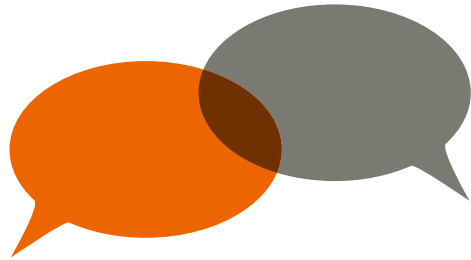
The path to better hearing



The next step
in your
hearing journey

oticon
MEDICAL

Let's talk about improving your hearing



We rely on our hearing to be able to interact with family, friends and the world around us. Whether you're listening to music, hearing the birds sing, or just chatting with friends, the sounds of life are as varied as they are meaningful.

You have been given this brochure because your local hearing care professional thinks that you could benefit from a bone anchored hearing system, also called BAHS, because of the nature of your hearing loss or other medical conditions.

400,000+

users around the world benefit from a bone anchored hearing system (BAHS)



On the following pages, you can read more about BAHS – a life-changing technology that has brought sound to hundreds of thousands of people around the world¹.

1. Tjellström A. The father of Osseointegration and the godfather of the BAHA: Professor Per-Ingvar Brånemark, Göteborg Sweden has passed away in his 86th year. *Eur Arch Otorhinolaryngol.* 272, 779–780 (2015). <https://doi.org/10.1007/s00405-015-3581-1>.

“

I would highly recommend a BAHS. It has made a huge impact on my life. The clarity of sound when I'm with my family at home, being able to understand conversations and in social environments particularly. For me, this device is very natural and close to normal hearing.”

Louise, current Oticon Medical BAHS user



BAHS is a different way of hearing

If your hearing loss is caused by changes in your outer or middle ear, or if you have a single-sided profound hearing loss in one ear and good hearing in the other ear, using a BAHS may improve your hearing and overall well-being. This is because it uses a different method of sound transmission compared to conventional hearing aids.

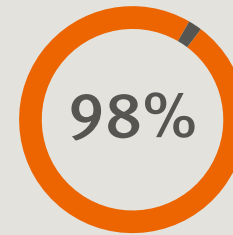
A BAHS is worn on the head and not in the ear. This means the sound can bypass any damage in the outer or middle ear, leaving the ear canal open. Many people who have medical conditions, such as repeated ear infections or skin allergies, switch from conventional hearing aids to a BAHS because it is more comfortable. The BAHS procedure is minimally invasive and does not affect your underlying hearing.

You should not expect a BAHS to restore your hearing completely. However, many users find that a bone anchored solution gives them access to improved and more natural sound quality in everyday situations.

Bringing back the sounds of daily life

A BAHS, like the Ponto™ System from Oticon Medical, may help you to:

- Understand speech better
- Take part in conversation during meals or social events
- Watch TV and listen to music
- Participate more easily in school/work activities
- Talk on the phone



98% of users report improved quality of life after Ponto surgery²

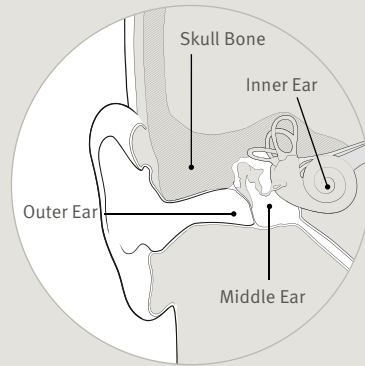
2. Lagerkvist, H, et al., Ten years' experience with the Ponto bone anchored hearing system – a systematic literature review. Clin Otolaryngol, 2020.



A life-changing technology for many people

How does a BAHS work?

A bone conducting system consists of a sound processor and an implant. The sound processor picks up the sound, which is then transformed into vibrations that travel through your skull bone via the implant and directly into the inner ear, where you hear them as sounds.



With conventional hearing aids, amplified sound passes through the ear canal and middle ear before it reaches the inner ear. In contrast, with a BAHS, the sound bypasses the ear canal and the middle ear. This makes a BAHS suitable for people with conductive or mixed hearing loss and people with single-sided deafness. In the second case, the sound is picked up on the deaf side and the vibrations travel via the skull bone to the inner ear on the other side.

The terms “bone conduction hearing”, “bone anchored hearing” and “BAHS” all refer to the same method of hearing.

Who can benefit from a BAHS?

People with conductive or mixed hearing loss

Conductive hearing loss is when an obstruction somewhere in the outer and/or middle ear hinders airborne sound waves from reaching the inner ear. Mixed hearing loss refers to a combination of conductive and sensorineural hearing loss. This means there may be challenges in both the outer or middle ear and in the inner ear.

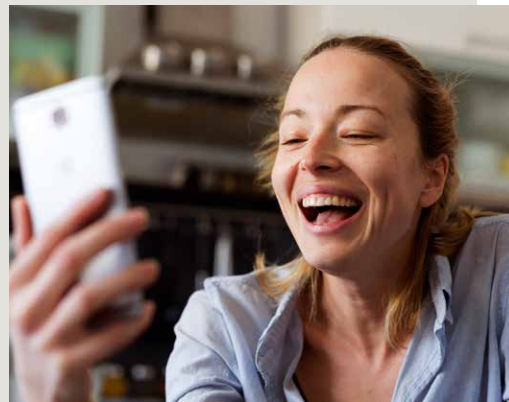
If you have conductive or mixed hearing loss, a BAHS may be a good alternative to a conventional hearing aid as the sound signal is sent directly to the inner ear. This bypasses any blockage in the outer and middle ear, which improves sound quality.

People with single-sided deafness (SSD)

If you have a profound hearing loss in one ear and normal hearing in the other, you may benefit from BAHS, as it will enable you to hear people speaking from your deaf side and may improve your ability to hear speech in noise³.

You may also benefit from a BAHS instead of a CROS (contralateral routing of signals) solution. BAHS uses the bone to transmit the sound to the hearing inner ear, so only one device is needed and the ear canal remains completely open.

3. Wazen JJ, Spitzer JB, Ghossaini SN, Fayad JN, Niparko JK, et al. Transcranial contralateral cochlear stimulation in unilateral deafness. *Otolaryngology-Head & Neck Surgery* 2003;129(3):248-54.



There are different solutions available for BAHS

When considering a BAHS, there are two main types to choose between: **percutaneous** and **active transcutaneous**. Whether either solution is suitable for you will depend on your hearing profile, your medical history, and the recommendations from your hearing care professional.

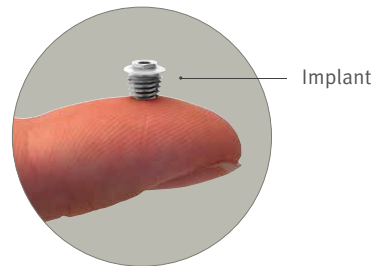
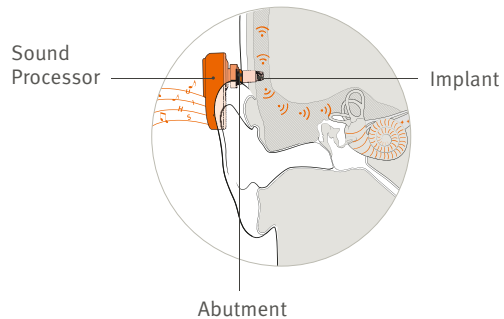


Percutaneous system

The percutaneous BAHS uses a small implant and connecting abutment for leading or transmitting vibrations to the bone. Due to the small implant size, the procedure involved is minimal, often taking less than 15 minutes under local anaesthesia.

This kind of implant supports the strongest BAHS sound processors, benefitting people with significant hearing loss, but also giving the best possible hearing outcomes even if your hearing loss is small. With this type of implant, routine cleaning with soap and water around the skin penetrating abutment is needed.

An advantage of this system is that the implant creates less shadow during head scans. This is beneficial if at some point in time you need an MRI scan of your head.

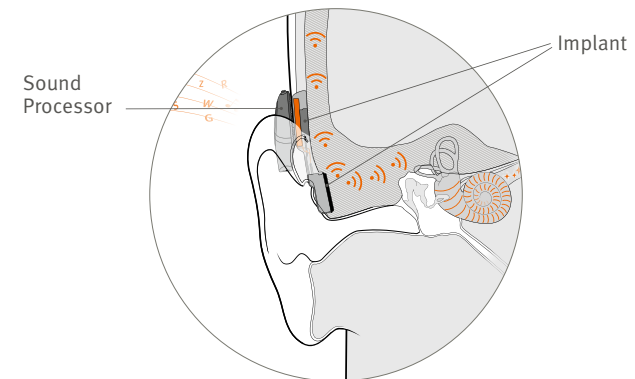


Active transcutaneous system

Active transcutaneous BAHS is an alternative solution. It uses a larger implant (compared to percutaneous), placed in contact with the skull bone underneath the skin. Surgery normally takes about an hour, performed under general anaesthesia. The sound processor is held in place over the implant by magnets.

An advantage of this system is that when the sound processor is removed, the implant is hidden and almost invisible. As there's nothing penetrating the skin, this eliminates the need for daily care. However, when undergoing head scans, such as an MRI, and depending on the scan's location, you might need a surgical procedure to remove the implant.

Your hearing care professional will discuss if this solution is right for you and your hearing loss.





Try before you decide

You can test a BAHS sound processor on a softband or headband before you decide to proceed with the surgical procedure. By wearing the BAHS in different daily situations, you can get an idea of how it can benefit your hearing, and it will help you make a more informed decision.



After implantation, most people enjoy even greater improvements in sound when compared to the test on a softband. That is because both implantable solutions (percutaneous and active transcutaneous systems) transfer the sound and vibrations directly to the bone. In contrast, with a softband solution trial, the sound and vibration need to pass through the skin before reaching the bone, which can result in a dampening effect.

If you change your mind at a future date, the surgery is reversible and the implant can be removed.



One of the greatest things about starting this process of getting a BAHS was that I was able to try it on using a softband. It is like buying new shoes. If you don't like them, you just return them and no harm done."



____ Jamina, former hearing aid user, current Oticon Medical BAHS user

See and hear the stories of Camilla and Ross

Use the QR codes to see their video testimonials



Now with Ponto 5 SuperPower, it is very comfortable. I have been able to really enjoy music. It has built my confidence and I am able to listen to conversations that I would have never thought I could hear."

____ Camilla, former hearing aid user, current Oticon Medical BAHS user

Watch testimonial video here



Wearing a Ponto at work has been incredible. When we're in staff meetings, I can hear all my staff. I've always said it's like the Ponto makes me "Me" again – I can't say any better than that."

____ Pastor Ross, current Oticon Medical BAHS user

Watch testimonial video here



Meet users of bone anchored hearing solutions

Your journey to better hearing with a BAHS

Try it out

You will test a BAHS on a softband or headband in the clinic or at home where you can listen to the different sound environments in your daily life.



Evaluation

Your hearing care professional introduces you to a bone anchored hearing solution (BAHS) and identifies if this is a suitable option for you.



Decide on treatment

Discuss and decide with your hearing care professional what the best solution is for you.



Surgical procedure

The surgical procedure usually takes less than an hour. Depending on the implant type chosen, the procedure can take less than 15 minutes under local anaesthesia.



Healing

Following the surgical procedure, you can resume your normal activities. 7-10 days after, the dressing will be removed from the implant site.



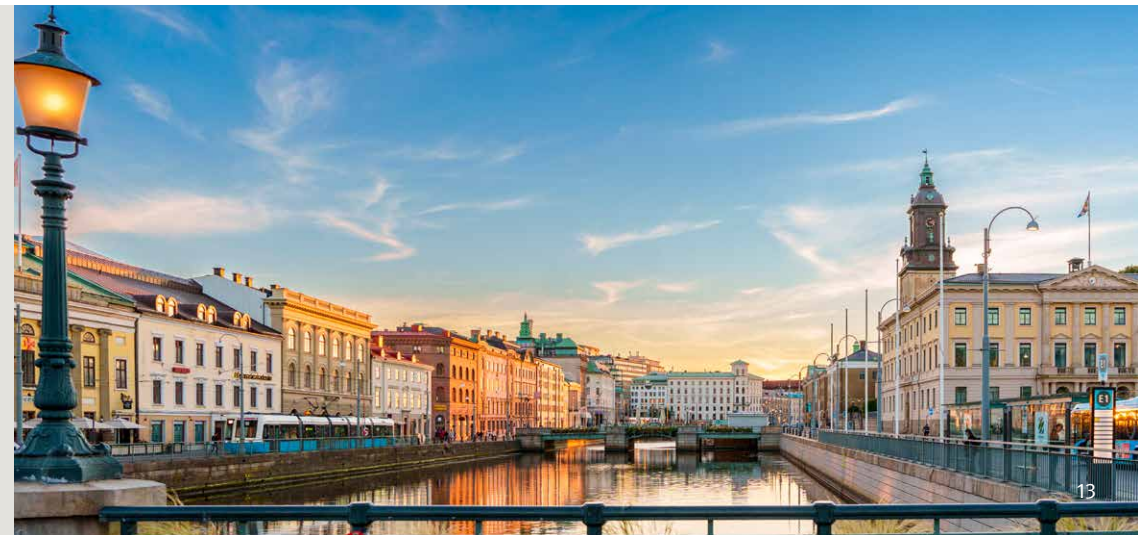
Fitting of sound processor

Once fully healed, the sound processor is fitted by your hearing care professional and you can start to use it.

Lifelong support

We believe that BAHS users and professionals should be able to choose the best possible solution at any time along the patient journey. We call it "Freedom of Choice" and it has always been paramount to Oticon Medical.

This is the reason why our solutions are designed to be compatible whenever possible. As a result, an implant from Oticon Medical stands as a true testament to our unwavering lifelong support. Our global reach allows us to give you support wherever you are.



Talk to your hearing care team about...

1. What can I expect from a BAHS?

With a BAHS, you wear the sound processor behind the ear and not in the ear. This can be easier if you find conventional hearing aids uncomfortable, or if you suffer from regular ear infections. Some people also find that leaving the ear canal open gives them more natural sound compared to conventional hearing aids.



2. Can I use a BAHS on one ear and a conventional hearing aid on the other?

Yes you can. If you do this, you should consider using a BAHS and a hearing aid that share similar technological platforms, as this can provide a smoother experience.



3. What should I consider when choosing a BAHS sound processor?

You should consider factors such as comfort, ease of use, size and reliability. But most importantly, you should consider the sound quality the BAHS sound processor offers. It is designed to give you the clearest, most intelligible speech signal everywhere you go. This will support your brain's ability to make sense of sound and reduce listening effort. Finally, you should also consider the potential future need for an MRI scan of your head.



4. How is the surgery?

Getting a BAHS is a well-proven and safe surgical procedure. If you decide to get a percutaneous implant, you may be able to have a Ponto minimally invasive procedure (MONO or MIPS). These techniques give the smallest incision possible with no sutures, minimal scarring and a shorter healing time. Such a procedure often takes less than 15 minutes. If you choose an active transcutaneous implant, the surgery will be slightly more extensive, but generally takes less than an hour.



5. Can I try a BAHS without the surgery?

Yes, you can try a BAHS sound processor on a softband or headband. By wearing the sound processor on a band, you can try it out without needing surgery. This will help you make an informed decision.



6. Can I connect a BAHS to electronic devices or the phone?

Yes, Oticon Medical sound processors can wirelessly connect to and stream sound from a wide range of electronic devices, including phones, TVs, and computers.



Appointment information



What you need to know about a bone anchored hearing system

Because sound matters

Oticon Medical is a global company in implantable hearing solutions, dedicated to bringing the power of sound to people at every stage of life. For more than a decade, we have made bone anchored hearing systems more accessible by simplifying the treatment for physicians, audiologists, and patients alike.

We believe that patients and hearing care professionals should be able to choose the best possible solution at any time along the patient journey. We call it “Freedom of Choice” and it has always been paramount to Oticon Medical. This is the reason why our solutions are designed to be compatible whenever possible. As a result, an implant from Oticon Medical stands as a true testament to our unwavering lifelong support.

We work collaboratively to ensure that every solution we create is designed with our users’ needs in mind. We have a strong passion to provide innovative solutions and support that enhance quality of life and help people live life to the fullest – now and in the future.

Because we know how much sound matters.



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Not all hearing loss patients are candidates for a bone anchored hearing system (BAHS). All surgical procedures include an element of risk, and it is impossible to guarantee success. Outcomes may vary. Testimonials represent the opinion of the concerned individuals only and may not be the experience of others. Not all products are available in all markets. Product availability and indications are subject to regulatory approval and may vary depending on the market.