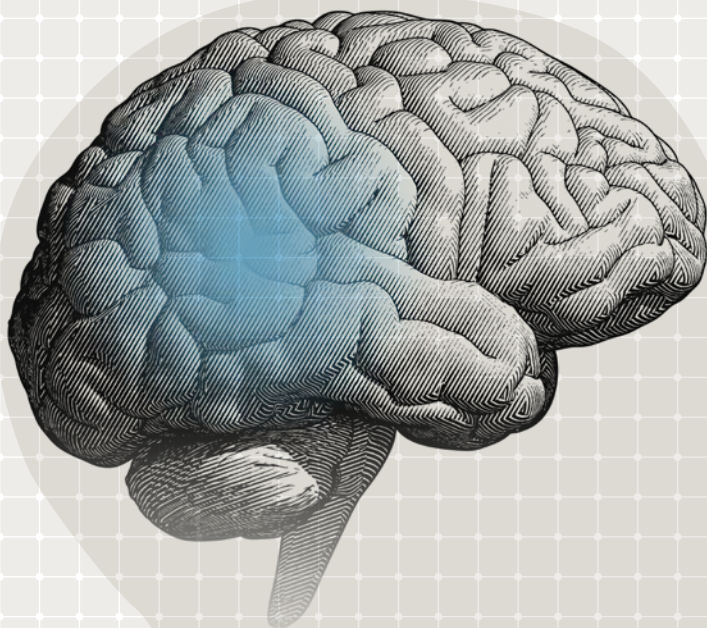



Hearing health is **brain health**



How hearing loss affects your health
and what to consider with treatment

oticon
life-changing technology



Your hearing affects your brain and your life

Do you ever find ...

- People keep mumbling?
- You miss the point in people's stories?
- You can't hear the TV?

And do you ever feel ...

- Tired or stressed from socializing?
- Confused about conversations?
- That you'd prefer to stay at home?

Your brain may need more sound!

If your brain doesn't get enough sound information from your ears, you'll find it more difficult to understand what people are saying and what's happening around you.

It's because hearing is thinking

Your ears collect sound, but it's your brain that actually understands it.

Since hearing is a mental process, hearing problems become brain problems, which can turn into life problems. But don't worry! Brain-friendly hearing aids help your brain stay fit throughout your life – and avoid the negative consequences related to untreated hearing loss.

The consequences of untreated hearing loss

If your brain's access to sound is limited, such as by untreated or inadequate treatment of hearing loss, it can lead to serious problems in life:



Increased mental load

Having to guess what people are saying and what's happening increases the mental load on the brain and leaves less mental capacity for remembering and performing.¹



Social isolation and depression

People with untreated hearing loss may reach a stage where they avoid social gatherings because they are unable to cope with complex sound environments. This increases the risk of loneliness, social isolation, and depression.²



Poor balance and fall-related injuries

Untreated hearing loss can affect people's balance, which increases the risk of fall-related injuries three-fold.³



Dementia and Alzheimer's disease

The risk for dementia is increased five-fold for severe-to-profound hearing loss, three-fold for moderate hearing loss and two-fold for mild hearing loss.⁴

These consequences are because of how hearing works in the brain's hearing centre.

1. Rönnberg et al. (2013). 2. Amieva et al. (2018). 3. Lin et al. (2012). 4. Lin et al. (2011).



Conversations are harder to follow

Missing sound information makes it especially hard at family gatherings or restaurants where lots of people are talking.



Listening takes more effort

The brain has to work harder to recognize sounds from incomplete sound information while filling in the gaps by remembering and guessing.



Mental load increases for hearing

With less mental capacity left over for other things, it becomes harder for all the different parts of your brain that also make sense of your life.

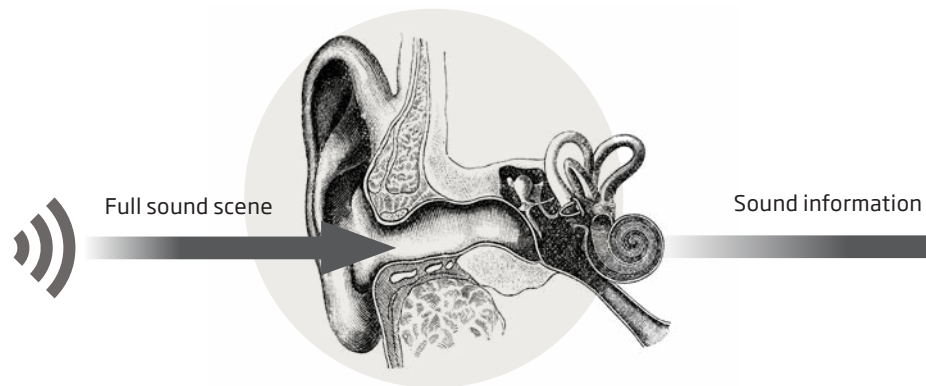
How hearing works in your brain

Sound travels from your ears to your brain's hearing centre, where there are two subsystems: The **orient** subsystem and the **focus** subsystem.* These constantly work together to help you understand the sound scene around you.

The orient subsystem constantly scans your surroundings to create a full overview of the sound scene.

The focus subsystem helps you select which sounds to listen to and which sounds to switch your attention to - while the irrelevant sounds are filtered out.

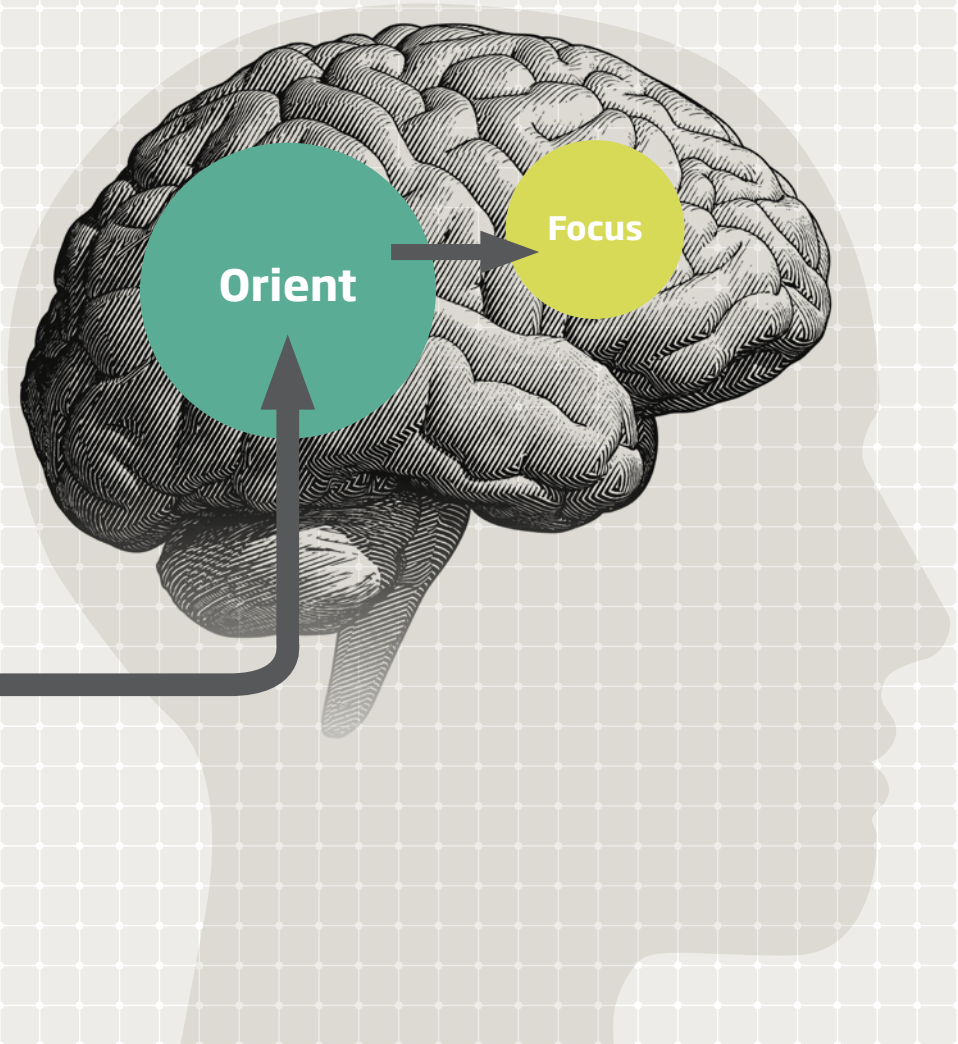
From the hearing centre, sound is used by other brain centres including the working memory and long-term memory, to recognize and make sense of the sounds.



Hearing process with normal hearing

How does hearing loss affect your brain?

For your brain to work in a natural way, it needs information about the full sound scene. But with hearing loss, the sound information is limited. This makes it much harder for the brain to orient itself in your surroundings - which then makes it harder to focus on what's important. This is what hearing aids with BrainHearing™ technology are designed to help with.



*O'Sullivan et al. (2019) & Puvvada et al. (2017)

Give your brain exactly **what it needs to hear**



The sooner you act, the better for your brain

Research shows that the sooner hearing loss is treated, the easier and better it is for the brain.

If your hearing care professional recommends hearing aids as the right treatment for you, it's important to consider what your brain needs when selecting your devices.

Your brain needs
to hear as much
as possible with
the least amount
of effort.

Consult your hearing care professional

Choosing the right device might seem overwhelming, but your hearing care professional is just that - a professional. They will talk to you about your wishes and needs, and make a recommendation that's tailored to you. What is more, they can fit you with brain-friendly hearing aids and set them up to support your brain in the best way possible.

“ Did you know?

When hearing aids are tailored to your unique listening preferences - and what your brain needs - you will get much more natural sound without having to concentrate so hard to understand it.

Hear all the **meaningful sounds** in your life



Oticon
BrainHearing™
Technology

Oticon develops brain-friendly hearing aids

If you choose Oticon hearing aids, you choose ones that help to ensure your brain receives the quality sound information it needs to work naturally and remain healthy.

We call this unique approach BrainHearing, and it is what makes Oticon hearing aids unique. Our BrainHearing technology is based on decades of clinical research.

It is well-documented that treating hearing loss with Oticon's premium hearing aids helps your brain make sense of sound. As this helps you engage in conversations, it can help turn a potentially negative chain reaction into a positive one - with a better foundation for healthy aging.

BrainHearing technology helps your brain:

- Orient better in the full sound scene
- Focus more clearly on what you choose
- Improve your understanding of speech
- Reduce the effort it takes you to listen
- Improve your memory recall

Talk to your hearing care professional
about Oticon hearing aids or
learn more at **oticon.co.uk**

Contact your local hearing care professional:

