



HiRes Ultra 3D

HASSLE FREE MRI



A Sonova brand



The Latest Technology for Full Living and Hassle Free MRIs

Getting a cochlear implant (CI) is a life-changing decision. Whether it's listening to a live performance, talking to a friend or relative on the phone, participating in a meeting, playing sports or simply enjoying the sounds of the world around you, you deserve the most accurate and complete sound possible.

That is why at Advanced Bionics we design cochlear implants that deliver the most accurate and complete sound possible, so you never miss a thing in any setting. And with the first of its kind multi-magnet assembly that provides alignment to the strong magnetic field of an MRI machine, our latest HiRes™ Ultra 3D cochlear implant is also safe for 3.0 Tesla MRIs. With conventional magnets you may need surgical removal and reinsertion of the magnet inside the implant to undergo an MRI, but the multi-magnet assembly gives you the freedom of hassle free MRIs if you ever need one.

We are passionate about delivering you cutting-edge technology to allow you to hear and live your best. And together with Phonak we have a combined experience of almost a century in developing and delivering cutting-edge innovations in hearing products. We're dedicated to and passionate about pushing the limits of technology to provide the most natural and complete hearing solutions possible—so you can have a life without limitations.

All around the world, many thousands of people have already benefitted from our cochlear implants. We welcome you to the AB family and look forward to you being able again to make powerful connections to the ones you love.

The World's Most Advanced Cochlear Implant System

Future-Proof

Our HiRes Ultra 3D cochlear implant is designed to accommodate future new developments in signal processing and compatibility with product enhancements. It has spare capabilities which gives you peace of mind.

Gentle on the Inner Ear

Our implant's tiny electrode array is what stimulates your hearing nerve. Our electrodes are designed to protect the delicate cochlea structures^{1,2,3,4} and provide complete coverage of the cochlea for full spectrum sound^{5,6}.

Hassle Free MRI

Our HiRes Ultra 3D cochlear implant, with its multi-magnet assembly that provides 3D magnetic field alignment, has no restriction on head orientation during the MRI. You can enjoy hassle free and pain free MRI examinations, and it eliminates the lengthy preparation procedures for you, such as surgical removal and reinsertion of the magnet, after which you need to wait some time until you can use the implant again. With Hires Ultra 3D after the MRI you put back on your sound processor for uninterrupted hearing.

Thin, Strong and Versatile

The HiRes Ultra 3D is designed to exceed industry standards for all-day use and impact resistance, so you can enjoy all of life's adventures without limits.

Wireless capabilities and benefits

The AB Naída sound processors have wireless capabilities for better performance in challenging listening environments. Speech understanding in noisy situations is very important and AB offers you the latest Phonak technology to address exactly that.



The HiRes Ultra 3D Cochlear Implant has been awarded the Medtech Breakthrough Award 2019 for Best Medical Device Solution.



The Advanced Bionics Advantage

Clear, Effortless Hearing in Every Setting

Every aspect of our HiRes Ultra 3D CI system has been optimized for clarity, comfort and convenience and to work seamlessly together toward one unwavering goal: helping you hear your best. Thanks to the sophisticated electrode design and our partnership with Phonak, the world leader in hearing aids, the AB sound processor can deliver frequency information to 120 cochlear places. This gives you a fuller and richer hearing experience. And no matter what environment you are in, our system automatically filters out background noise and adjusts to deliver optimal hearing.

Built for Sports

Our HiRes Ultra family of implants has been designed to allow you to engage in a quality of life no different from that of a non-CI user. The HiRes Ultra 3D exceeds the industry standard⁷ for impact resistance and allows recipients to participate in everyday activities and sports without worry.

Benefits in Case You Need an MRI

Hassle Free

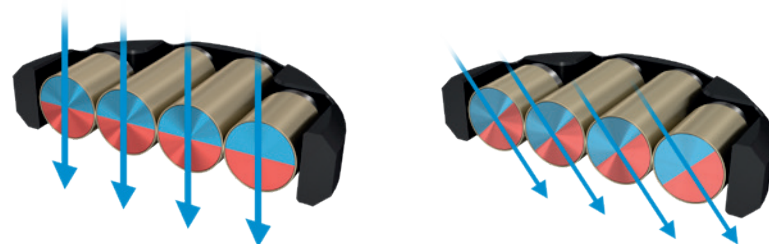
MRI examinations are increasingly used for diagnostic purposes. Unlike X-Rays, you are not exposed to a radiation dosage and doctors get very detailed pictures of inside your body. We believe that an MRI procedure should be hassle free for you. That is why the new multi-magnet assembly in the HiRes Ultra 3D CI, invented by AB, provides 3D magnetic field alignment that allows you to safely undergo high-resolution imaging, such as 3.0 Tesla MRIs, without any reparation, surgery or head bandaging.

Pain Free

Going into an MRI tube is stressful. Not being allowed to move your head in the MRI field can increase that stress. And so does the prospect of pain you may experience. Our HiRes Ultra 3D cochlear implant requires no restriction on head orientation during an MRI. This means you can be more relaxed and comfortable within the magnetic field. The multi-magnet assembly that provides 3D magnetic field alignment ensures that the powerful forces generated during an MRI don't cause any torque, pressure, tugging or discomfort for you, for pain-free MRI procedures every time.

Uninterrupted Hearing

When getting an MRI, you will not need any special preparation other than taking off your sound processor and headpiece. And when the scan is done, all you have to do is put it back on. With our HiRes Ultra 3D cochlear implant we provide you uninterrupted hearing, which is essential for your everyday life.





A Life Without Limitations

At Advanced Bionics, we believe that hearing loss shouldn't keep you from the activities you love—or get in the way of staying powerfully connected with the important people in your life. We also believe you shouldn't have to face difficulties or delays if you ever need diagnostic medical imaging.

What is your favorite hobby? Outdoor sports, skiing, riding your bike — everything is possible. That's why we designed the sophisticated and durable HiRes Ultra 3D cochlear implant to give you sound clarity and comfort through every kind of activity—no matter how noisy, quiet, rough or wet.

At Advanced Bionics, we are driven by the success of the people who benefit from our hearing solutions, and we are honored to have the opportunity to help those with hearing loss enjoy a life without limits.

Three Reasons to Choose HiRes Ultra 3D

1. **Hassle Free** because you don't need any special preparation or surgery prior to an MRI.

2. **Pain Free** because our new innovative multi-magnet assembly provides 3D magnetic field alignment, so there's no pain and discomfort during an MRI.

3. **Uninterrupted Hearing** because the only thing that you have to do to get an MRI is to take off the sound processor and put it back on after the MRI examination.



References

1. Dietz A, Iso-Mustajärvi M, Sipari S, Tervaniemi J, Gazibegovic D; Evaluation of a new slim lateral wall electrode for cochlear implantation: an imaging study in human temporal bones. *Eur Arch Otorhinolaryngol*. 2018 Jul;275(7):1723-1729
2. Frisch CD, Carlson ML, Lane JI, Driscoll CL; Evaluation of a new mid-scala cochlear implant electrode using microcomputed tomography. *Laryngoscope*. 2015 Dec;125(12):2778-83
3. Hassepass F, Bulla S, Maier W, Laszig R, Arndt S, Beck R, Traser L, Aschendorff A; The New Mid-Scala Electrode Array: A Radiologic And Histologic Study In Human Temporal Bones. *Otology & Neurotology* 2014; 35(8):1415-20
4. Dietz A, Gazibegovic D, Tervaniemi J, Vartiainen VM, Löppönen H; Insertion characteristics and placement of the Mid-Scala electrode array in human temporal bones using detailed cone beam computed tomography. *Eur Arch Otorhinolaryngol*. 2016 Dec;273(12):4135-4143
5. Benghalem A, Gazibegovic D, Saadi F, Tazi-Chaoui Z; Use of a mid-scala and a lateral wall electrode in children: insertion depth and hearing preservation. *Acta Otolaryngol*. 2017 Jan;137(1):1-7
6. Olga Stakhovskaya, corresponding author Divya Sridhar, Ben H. Bonham, and Patricia A. Leake; Frequency Map for the Human Cochlear Spiral Ganglion: Implications for Cochlear Implants. *J Assoc Res Otolaryngol*. 2007 Jun; 8(2): 220–233
7. EN 45502-2-3:2010. Active Implantable Medical Devices. Particular Requirements for Cochlear and Auditory Brainstem Implant Systems.

🏢 ADVANCED BIONICS LLC – 28515 Westinghouse Place - Valencia, CA 91355, United States
T: +1.877.829.0026 - T: +1.661.362.1400 - F: +1.661.362.1500 info.us@advancedbionics.com

EC	REP
----	-----

 ADVANCED BIONICS GMBH - Feodor-Lynen-Strasse 35 – 30625 Hannover, Germany

For information on additional AB locations, please visit advancedbionics.com/contact

Advanced Bionics - A Sonova brand

Please contact your local AB representative for regulatory approval and availability in your region.