

Oticon ♦ Vigo



child
friendly
hearing
care



MORE OF WHAT CHILDREN NEED

oticon
PAEDIATRICS



Meet VIGO – the new child-friendly hearing aid!

When you work with children and their families, we recognise that much of your attention is focused on addressing their needs, expectations, and concerns.

At Oticon we use the knowledge you share with us to create the most parent- and child-friendly solutions available. Appreciating that access to speech, size and FM connectivity are crucial elements in the hearing technology you recommend we have made sure that the new Vigo family addresses all three.

Vigo's extended bandwidth captures even more of the high frequency cues so vital for language development. And Vigo isn't just small - it's one of the smallest hearing aids EVER to offer ear-level FM connectivity.

Oticon's paediatric portfolio already equips you to help a wide range of youngsters. And with Vigo Pro and Vigo you will have even more child friendly solutions.



We want to help you meet children's needs



MORE bandwidth - MORE speech

Vigo's 8 kHz bandwidth captures more high frequency cues than any other instrument in its category. The 6-8 fitting channels give you the flexibility to shape the signal to best match the child's needs.

Parents will be interested to know that Vigo's wider bandwidth serves two functions:

to provide the most detailed auditory information, and support the best possible speech production.

With Vigo, you can provide more children with the important benefits of extended bandwidth.



We want you to be able to offer vital benefits

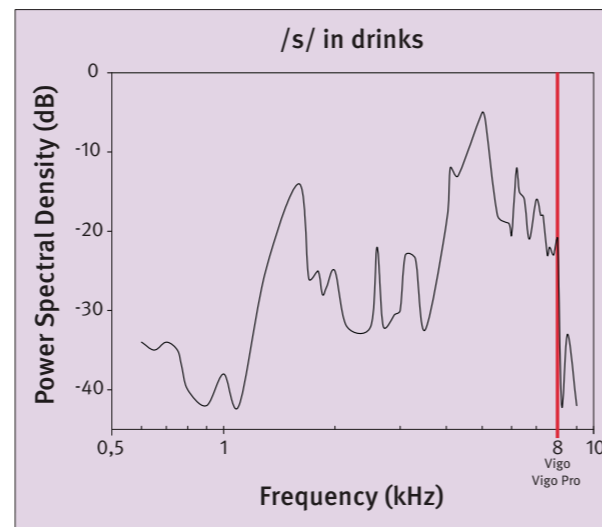
The importance of extra bandwidth

One of the exciting developments in hearing aids has been the increase in frequency bandwidth. The extended high frequency range helps to make speech and other sounds more audible and natural. The high frequencies are also known to contain important perceptual information that enhances both speech naturalness and intelligibility. This can be critical for speech perception and speech production by children with hearing loss.

High frequencies and speech

Children with hearing loss often omit high-frequency consonants such as /s/ in speech production because they cannot hear it in the speech produced by others. For instance, they cannot hear the difference between 'boot' and 'boots', or between 'baby cries' and 'babies cry'. When /s/ is spoken by females and children, the peak energy of the sound occurs above 6.3 kHz*. A study published in 2004** concluded that the bandwidth of traditional behind-the-ear hearing aids was inadequate to accurately represent the high-frequency sounds of speech, (the fricatives /s/ and /z/) - particularly for female and child speakers.

With its 8 kHz bandwidth, Vigo Pro and Vigo can provide audibility of important high frequency speech cues for children with hearing loss.



Example of how extra hearing aid bandwidth helps ensure access to the entire sound*.



The importance of high-frequency amplification for infants and young children

Research*** has revealed that children with hearing loss require a wider bandwidth than adults with similar hearing losses in order to perceive high-frequency speech sounds. The need for high-frequency speech information may be greater in children with congenital hearing loss who are learning language for the first time than in adults with similar degrees of hearing loss, who already have established language. Also, for some children, the provision of high-frequency amplification may be especially helpful in noisy or reverberant environments.

While the importance of high-frequency amplification for infants and young children is still under investigation, Vigo and Vigo Pro offer the flexibility of extended bandwidth to better meet the individual needs of each child and support the development of speech and language.

Extended bandwidth for FM, too

Children with hearing loss spend hours listening through FM systems at school. To provide access to vital high-frequency speech cues in this environment, these systems should also have a wide bandwidth. However, the high frequencies transmitted in the FM signal may be restricted by the lesser bandwidth of the child's hearing aids.

The 7.5 kHz bandwidth in Amigo FM provides good access to the speech cues the child needs to hear and helps to improve comprehension at school. When used together with Amigo, Vigo's and Vigo Pro's 8 kHz bandwidth assures full access to the speech cues delivered by the Amigo FM system.

* Stelmachowicz PG, Lewis DE, Choi S, Hoover B (2007). Effects of Stimulus Bandwidth on Auditory Skills in Normal-Hearing and Hearing-Impaired Children, *Ear & Hearing*, Vol. 28, No. 4 483-494

** Stelmachowicz PG, Pittman AL, Hoover BM, Lewis DE, Moeller MP (2004). The importance of high-frequency audibility in the speech and language development of children with hearing loss. *Arch Otolaryngol Head Neck Surg.*,130:556-62.

***Stelmachowicz, P. (2001). The importance of high-frequency amplification for young children. A sound foundation through early amplification: Proceedings of the Second International Conference. Phonak, Inc.: Chicago, IL., 167-175.



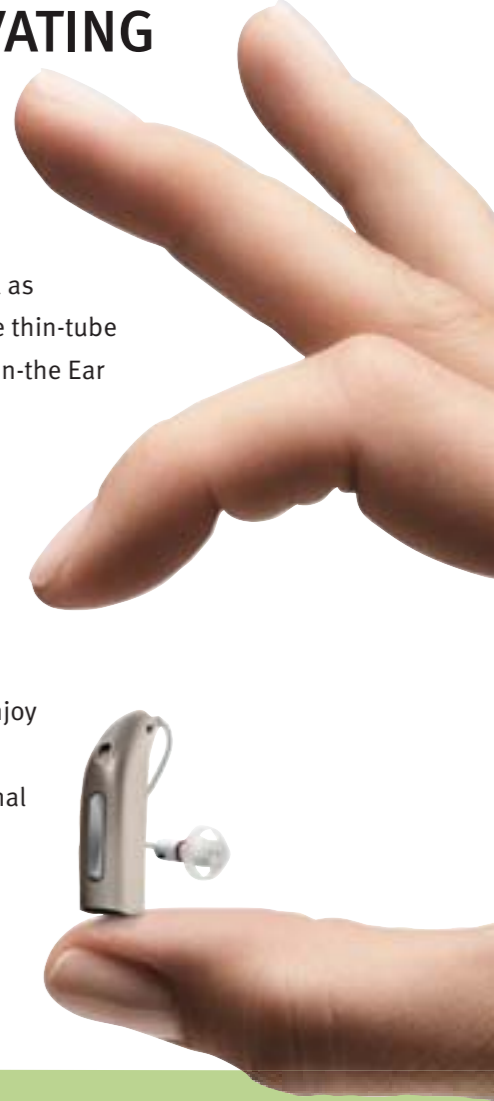
Much SMALLER – More MOTIVATING

The demand for smaller, high performance devices is growing and Vigo is setting the pace. Its significantly shorter length and slimmer silhouette make it ideal for children of all ages.

Vigo offers a number of benefits: the attractive design makes children feel more motivated to wear it – and keep on wearing it. And the extra discretion afforded by the reduction in size is important for parents too.

Vigo comes in 3 small child-friendly models: the standard BTE as well as open-fit options with the thin-tube Corda and the Receiver-in-the Ear (RITE) styles.

The reduced size combined with a dedicated pediatric hook means that Vigo will stay in place – even on little ears. So the child can enjoy more consistent access to a broader speech signal - with far greater comfort and less annoying feedback.



We want acceptance to be easy



SMALLER than ever – with FM

Vigo is the first solution this small to offer day-long, ear-level FM connectivity.

With the new dedicated Amigo R12 ear-level receiver the child can enjoy a secure, tamper resistant FM connection all day long. And their teacher can be certain that they are receiving a clear signal, because the LED light on the receiver confirms this.

Vigo plus Amigo R12 will be popular all around:

- Children will find it easy to wear and use.
- Teachers will be able to communicate effectively.
- Parents can relax knowing their child won't be left behind.



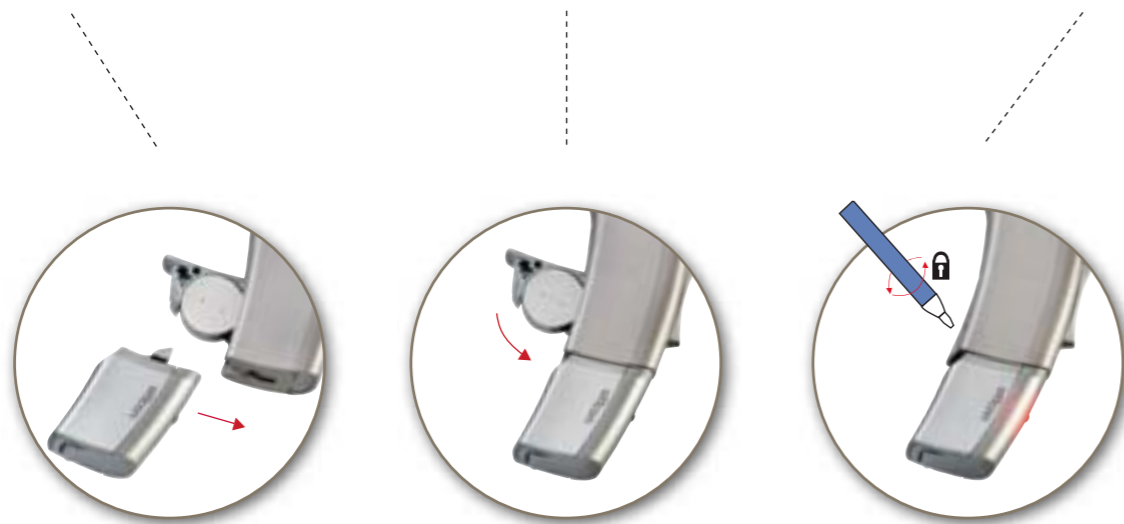
We want size AND performance to be something you can offer

Size and flexibility in one!

Where paediatric fittings are concerned, size is a major issue and including an FM receiver only adds to it. Thanks to the new dedicated Amigo R12 receiver, Vigo addresses this concern head on. This innovative accessory can be powered by batteries no larger than a 312.

And that's a world first!

The R12, which can be purchased and serviced separately from the hearing aid, offers all the benefits of complete FM integration as well as the flexibility and quality of state-of-the-art hearing aids. And the secure, tamper-resistant FM lock keeps the receiver in place.



LED Certainty

For busy teachers the LED light on the R12 provides a quick and easy way to confirm that the FM system is on, synchronised to the right channel, receiving the FM signal and working properly.



An open systems approach

Oticon has taken an open systems approach to FMs since we believe that FM solutions should be able to match with other systems. To give professionals this opportunity, we have made Amigo extremely flexible. Its frequency response and compression strategies are compatible with virtually every type of FM system available. Also, schools will not have to exchange entire inventories of equipment, as Amigo offers the full range of benefits when used with older FM products.

When using an Amigo receiver with a transmitter from another manufacturer, the Amigo receiver can be easily programmed with just a few keystrokes to match the other transmitter.

Features such as Channel Synchronisation will still be available through the unique channel scanning function on the Amigo R12. This finds the correct channel within seconds, provided that the transmitter is within the FM transmission range of approximately 30 metres.





LESS time on fitting – MORE time for care

As the leading rationale for paediatric fittings, DSL is well researched and widely trusted. So you can rely on it to always provide an appropriate response to the child's auditory universe.

The latest version – DSL v5.0 – is of course available in Vigo and includes a recent im-

provement addressing moderate hearing losses.

By implementing DSL into the fitting flow, we've made working with Vigo easy so you can spend less time on programming and more time on counselling.



We want you to have more time for counselling



More CHOICES – higher ACCEPTANCE

Vigo's size and design make it attractive enough, but it also comes in a variety of enticing colours. Whether it's deep purple or pale blue that catches the child's eye, the fact is that the more involved they become in the selection process, the higher their sense of ownership and acceptance will be.

Children can even customize their Vigo instruments with an array of dazzling sticker designs. This allows them to choose and change the design, which can boost their motivation and self-image.

When it comes to children with hearing loss, we all share the same goals: we want them to be able to explore their talents, pursue their dreams, and achieve their full potential.

And Vigo gives them an honest shot at all three.



We want to help you brighten their world



Stickers make Vigo more fun!

Children who get to customise their instruments feel a much greater sense of ownership. So on top of our new child-friendly colours we have created an array of stickers for all ages and moods. These colourful accessories are made to match a creative personality!



Blue



Baby Blue



Red



Baby Pink



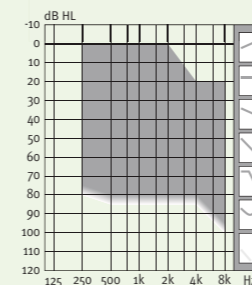
Silver

Product overview Vigo Pro/ Vigo

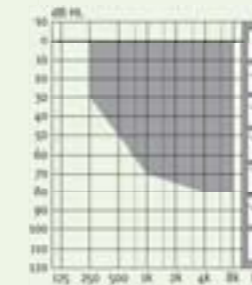
More child-friendly reasons to choose Vigo:

- Paediatric earhook that can be exchanged in-office
- New paediatric speaker length size (0) for RITE model
- Hearing Aid Care Kit

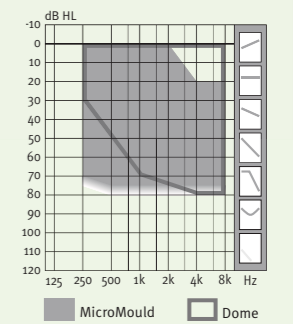
BTE
Hook



BTE
Corda²



RITE



OSPL₉₀ (peak)	Ear simulator	126 dB SPL	113 dB SPL	119 dB SPL
Full-on gain (peak)	Ear simulator	60 dB	53 dB	57 dB
Programs		1-4	1-4	1-4
Directionality, Vigo Pro/Vigo		Multiband Adaptive/Adaptive	Multi-band Adaptive/Adaptive	Multiband Adaptive/Adaptive
Telecoil		Yes	Yes	Yes
AutoPhone		Yes	Yes	Yes
Volume control		Configurable	Configurable	Configurable
Bandwidth		8 kHz	8 kHz	8 kHz
Channels, Vigo Pro/Vigo		8/6	8/6	8/6
FM Compatible		Yes	Yes	
Battery size		312	312	312
Battery life, typical		117 hrs	117 hrs	108 hrs



It takes a truly dedicated approach to help children with hearing problems achieve their full potential. That's why we deliver the solutions and services professionals and caregivers need to provide children the opportunities they deserve. This is what *child-friendly hearing care* is all about.

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