

## **Roger Focus II** Focus on what matters





Children, teens and adults with normal hearing can experience significant difficulties hearing in background noise or processing sounds. This could be due to a Unilateral Hearing Loss (UHL) or a functional hearing loss. Many times, functional hearing loss is also found in those with Auditory Processing Disorder (APD) or Autism Spectrum Disorder (ASD).

Not only can this result in issues understanding speech in noisy environments, it can also negatively impact aspects of psychosocial well-being such as listening fatigue<sup>1</sup>, stress<sup>1-6</sup> and engagement with others.<sup>2, 3</sup>

### Focus on what matters

Phonak has a long history of assisting children and adults who are affected by unilateral hearing loss or functional hearing loss thanks to the development of remote microphone technology.

There is mounting evidence that unaddressed listening difficulties such as those experienced by children and teens with UHL, APD or ASD can negatively impact communication, engagement, academics and well-being.<sup>1-6</sup>

Phonak remote microphone technology like Roger Focus II minimises the impact of UHL and functional hearing loss by improving signal to noise ratio (SNR) and therefore providing a significant improvement in speech understanding in noise<sup>2-7</sup> both inside and outside the classroom.

Roger Focus II is the next step in receiver technology that provides benefit to people with UHL or functional hearing loss. It is a lightweight, hassle-free ear-level Roger receiver for use by those aged 36 months and older. It pairs with all Roger™ microphones.



# Focus on listening performance at school and home

Children can struggle with listening and focus at the best of times, but when a child has a unilateral or functional hearing loss, focusing, learning and engaging in a classroom setting can be a challenge. Fortunately there is a solution that provides:

#### Better speech understanding

Depending on the environment, children with UHL and functional hearing loss can experience difficulty understanding speech. Speech recognition in noise is significantly improved for children with UHL<sup>7, 8, 9</sup>, APD<sup>6</sup> and ASD<sup>2, 3, 4</sup> when using Phonak remote microphone technologies like Roger Focus II, compared to no technology.

A study in 2020 with school aged children with UHL in a simulated classroom showed<sup>7</sup>:

- A significant decrease in speech understanding even in quiet at a distance of 3 m or more.
- Using Roger Focus II provides on average 60 percentagepoints better speech discrimination for children with UHL when in noise and at a distance of 5 m compared to no technology.
- In fact, when using Roger Focus II, speech intelligibility of children with UHL is significantly better than their peers with normal hearing in noise and at 3 m or more.

Studies have also shown that wireless technology such as Roger Focus II improves speech-perception-in-noise in children with ASD, thus making it easier for them to listen in noisy settings.<sup>2, 3, 4, 10, 11</sup>

#### Reduced listening effort or anxiety

Recognizing and addressing listening fatigue in children with UHL, APD and ASD improves well-being by reducing both anxiety and stress.

Parents have reported that using Phonak remote microphone technology like Roger Focus II improved listening ease in children with ASD.<sup>2, 3, 4</sup>

Listening effort is reduced for high-functioning\* youths with autism when using remote microphone systems like Roger Focus  $\rm II.^{10}$ 

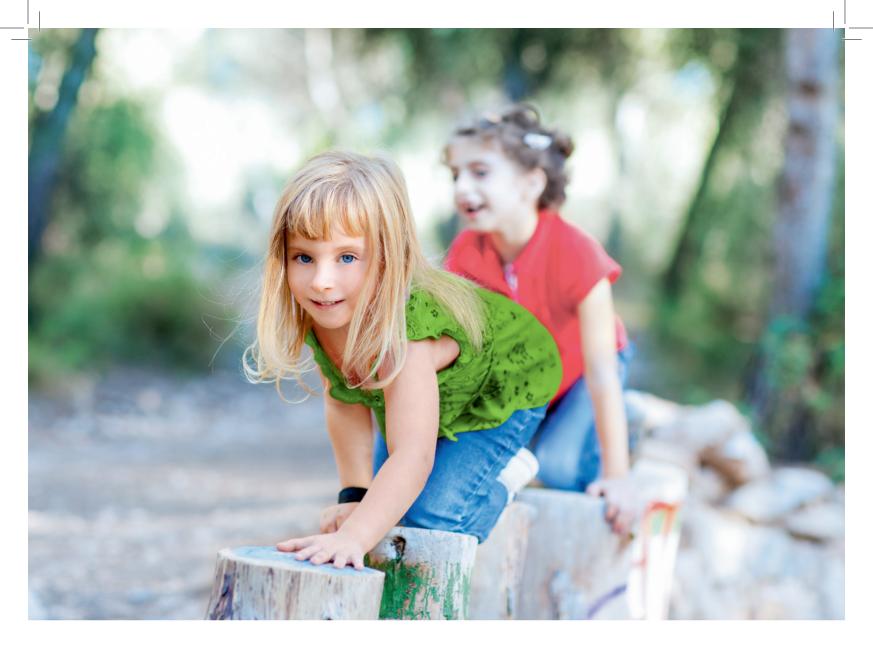
Finally, students with APD reported not only reduced anxiety and depression but also improved interpersonal relationships when using Phonak remote microphone technology.<sup>6</sup>



#### Improved classroom engagement and communication

Communicating in a busy classroom or even an active home setting can be difficult for children with UHL, APD or ASD. It is reasonable to believe that if the child is unable to communicate easily, they won't be able to engage fully.

Teachers report that classroom attentiveness, behaviour and listening all improve in children with ASD when using Phonak remote microphone technology like Roger Focus II.<sup>2, 3, 4</sup> Students with APD also reported improvement in hearing the teacher when using Phonak remote microphone technology like Roger Focus II.<sup>6</sup>



## Focus on safety

Roger Focus II is designed to be straightforward and simple to use. Children require a solution that is not easy to tamper with and caters to their individual needs. That's why Roger Focus II features:

- Tamperproof battery door options
- Individualised volume setting
- A lockable volume control
- An indicator light showing device and battery status
- Water and dust resistant technology (IP68\*)

\* IP68 indicates that the device is water and dust resistant. It survived continuous immersion in 1 meter of fresh water for 60 minutes and 8 hours in a dust chamber as per the IEC60529 standard.

# Focus on personalised choice

The Roger Focus II portfolio provides parents and kids options to suit their individual needs and styles. Among the highlights:



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- Available in two form factors
- Customisable with SlimTubes (00, 0, 1 and 2) and 3 sizes of open domes or a Cap dome
- A wide range of 10 color options for the rechargeable model
- Compatible with all Roger microphones
- Optional remote control

# Focus on flexibility with Roger microphones

Whatever a child's or teen's particular lifestyle needs, there is a Roger microphone to match. Users don't need to be technology experts either, since every Roger microphone is simple to connect and use. The result is a family of technology that children, parents, teachers, and hearing care professionals can trust.



Roger Touchscreen Mic Roger Touchscreen Mic features a user friendly interface for use in the classroom. With an automatic microphone function, it conveniently switches from an individual talker to a small group interaction mode, depending on its placement.



Roger Select<sup>™</sup> Roger Select is a versatile microphone ideal for stationary situations where background noise is present. When placed on a table, it discreetly and automatically selects the person who is talking, and seamlessly switches from one talker to another. When multiple conversations take place, the listener can manually select whom to listen to.



Roger Clip-On Mic

The Roger Clip-On Mic offers one-click connection and is perfect for parents of young children to use at the park, in the car, out shopping or anywhere where noise or distance may make focusing difficult.



Roger On<sup>™</sup>

Worn around the speaker's neck, placed on a table or held in the hand, the multiple microphones of the Roger On automatically reduce background noise, focusing on what the listener needs to hear.





### Focus on resources

#### Phonak also offers a range of online support resources

#### www.phonak.com/classroom-resources

Designed to help children with hearing loss succeed in the classroom and educate others on hearing loss.

#### www.phonak.com/parents-resources

Support for parents and children on every step of the hearing journey. Includes BabyBeats<sup>™</sup>, Leo's World and the Listening Room<sup>™</sup>.

#### www.phonak.com/teens

A webpage designed specifically for teens, including topics that are particularly relevant for this age group.

#### www.hearinglikeme.com

Online community for those whose lives are affected by hearing loss. People from all around the world share stories that inspire hope in an amazing array of hearing loss situations.

### Focus on evidence

#### Your full guide to the evidence referenced in this brochure

- <sup>1</sup> Bess, F., Davis, H., Camarata, S., & Hornsby, B. (2020). Listening-Related Fatigue in Children With Unilateral Hearing Loss. Lang Speech Hear Serv Sch. 51(1), 84-97. doi: 10.1044/2019\_LSHSS-0CHL-19-0017.
- <sup>2</sup> Rance, G., Chisari, D., Saunders, K. and Rault, J.L. (2017). Reducing Listening-Related Stress in School-Aged Children with Autism Spectrum Disorder. Journal of Autism and Developmental Disorders, 47(7), 2010–2022.
- <sup>3</sup> Schafer, E.C., Wright, S., Anderson, C., Jones, J., Pitts, K., Bryant, D., Watson, M., Box, J., Neve, M., Matthews, L. & Reed, M.P. (2016). Assistive technology evaluations: Remote-microphone technology for children with Autism Spectrum Disorder. Journal of Communication Disorders. 64:1-17.
- <sup>4</sup> Rance, G., Saunders, K., Carew, P., Johansson, M., & Tan, J. (2014). The use of listening devices to ameliorate auditory deficit in children with autism. The Journal of Pediatrics, 164(2), 352–357.
- <sup>5</sup> Bagatto, M., DesGeorges, J., King, A., Kitterick, P., Laurnagaray, D., Lewis, D., Roush, P., Sladen, D. P., & Tharpe, A. M. (2019). Consensus practice parameter: audiological assessment and management of unilateral hearing loss in children. International Journal of Audiology. Retrieved from https://www.tandfonline.com/ doi/full/10.1080/14992027.2019.1654620, accessed April 2021.
- <sup>6</sup> Kristin N. Johnston, Andrew B. John, Nicole V. Kreisman, James W. Hall III & Carl C. Crandell (2009) Multiple benefits of personal FM system use by children with auditory processing disorder (APD), International Journal of Audiology, 48:6, 371-383.

- <sup>7</sup> Nelson, J. & Dunn, A., (2021). Roger Focus II in children with Unilateral Hearing Loss. Phonak Field Study News, retrieved from www.phonakpro.com/evidence, available May 2021.
- <sup>8</sup> Jones, C. (2014). Roger Focus for school children. Phonak Field Study News. Retrieved from www.phonakpro.com/evidence, accessed April 2021.
- <sup>9</sup> Rance, G. (2018). Remote microphone listening devices for adults and children with unilateral hearing loss. Phonak Field Study News. Retrieved from www.phonakpro.com/evidence, accessed April 2021.
- <sup>10</sup> Felman, J., Thompson, E., Davis, H., Keceli-Kaysili, B., Dunham, K., Woynaroski, T., Tharpe, A.M., & Picou, E. (in press). Remote Microphone Systems Can Improve Listening-in-Noise Accuracy and Listening Effort for Youth with Autism. Ear and Hearing.
- <sup>11</sup> Schafer, E.C., Gopal, K.V., Mathews, L., Thompson, S., Kaiser, K., McCullough, S., & Hutcheson, A. (2019). Effects of auditory training and remote-microphone technology on the behavioral performance of children and young adults who have autism spectrum disorder. J Amer Acad Audiology 30(5), 431-443.

Read more at www.phonakpro.com/evidence



#### Meet Leo

Introducing Leo the lion, our friendly paediatric mascot. This adorable lion cub is the perfect way to introduce hearing solutions to children. Learn more at www.phonakpro.com/leo

#### life is on

At Phonak, we believe that well-hearing equates to well-being and is essential to living life to the fullest. For more than 70 years, we have remained passionate about creating a world where 'life is on' for everyone. Our innovative hearing solutions are designed for people of all ages and all degrees of hearing loss, to connect socially, thrive mentally and emotionally.

www.phonak.com/rogerfocus







Sonova AG · Laubisrütistrasse 28 CH-8712 Stäfa · Switzerland

