

# Adaptive Phonak Digital (APD) 2.0

## Adaptive compression for reduced listening effort<sup>1,2</sup>

### APD 2.0



**Adaptive compression speed:**

combines advantages of slow- and fast-acting compression



**Linearized high level gain:**

additional kneepoint results in loud inputs mimicking normal loudness growth function



**New precalculation for mild to moderate hearing loss:**

G65 speech target reduced up to 2 dB and G80 by 4 dB for comfort of moderate and loud sounds

### Study at the Hörzentrum Oldenburg, Germany



direct comparison of APD and APD 2.0 for mild to severe bilateral hearing loss



#### 41 participants:

- 44-83 years old
- Phonak Audéo RIC with APD and APD 2.0

#### 4 programs:

- ▶ Calm situation APD
- ▶ Speech in noise APD
- ▶ Calm situation APD 2.0
- ▶ Speech in noise APD 2.0

#### 2 groups:

- 1) Mild to moderate hearing loss with no/ short term hearing aid experience
- 2) Moderate to severe hearing loss with long term experience

#### Settings:



Lab tests



Guided tour



Home trial

#### Outcome measures:

**Speech understanding in noise:**  
SRT<sub>50</sub> at 65 dB

**Modified Freiburger:**  
repetition of monosyllabic word

**Listening effort:**  
Adaptive Categorical Listening Effort Scaling (ACALES)

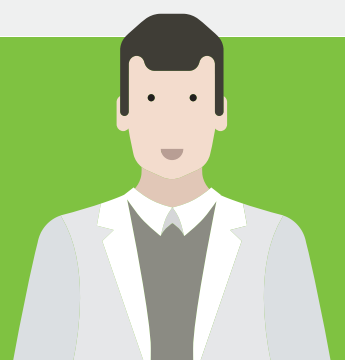
**Guided tour:**  
overall preference on dimensions like loudness, naturalness, listening effort, annoyance

**Home trial:**  
overall preference on various dimensions

	Speech understanding in noise: SRT <sub>50</sub> at 65 dB	Modified Freiburger: repetition of monosyllabic word	Listening effort: Adaptive Categorical Listening Effort Scaling (ACALES)	Guided tour: overall preference on dimensions like loudness, naturalness, listening effort, annoyance	Home trial: overall preference on various dimensions
Group 1*	no difference	significantly better with APD 2.0	significantly better with APD 2.0	significantly higher preference for APD 2.0	no difference
Group 2**	significantly better with APD 2.0	no difference	significantly better with APD 2.0	no difference	significantly higher preference for APD 2.0

\*mild-moderate HL / \*\*moderate-severe HL

APD 2.0 reduces listening effort, especially in noise, compared to APD for individuals with mild to severe hearing loss!



The content of this infographic is based on:

<sup>1</sup>Wright, A. (2020). Adaptive Phonak Digital 2.0: Next-level fitting formula with adaptive compression for reduced listening effort. Phonak Field Study News, retrieved from [www.phonakpro.com/evidence](http://www.phonakpro.com/evidence), accessed August 19th 2020.

<sup>2</sup>Woodward, J., Jansen, S., & Kühnel, V. (2020). Hearing inspired by nature: the new APD 2.0 prescription formula with adaptive compression by Phonak. Phonak Insight, retrieved from [www.phonakpro.com/evidence](http://www.phonakpro.com/evidence), accessed August 19th 2020.