

Real life accessibility to hearing technologies

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Goals of hearing rehabilitation

- To minimize hearing loss Impact by making the world of NHI (normally hearing individuals) accessible also to HII (hearing impaired individuals)

Minimizing hearing loss Impact

- Providing sensory accessibility that aligns with what NHI are able to access from hearing

The technology Accessibility to:	Technologies controlled only by the user	
	User's end technology (CI, HA)	SNR improving technologies / direct streaming
Speech understanding - quiet	+	
Speech understanding - noise	+	+
Phone, TV-like sources, Zoom	+	+
Movies, Theatre performances	+	+
Maintaining & upgrading of ear health & technology		

Minimizing hearing loss Impact

- Providing sensory accessibility that aligns with what NHI are able to access from hearing - **Covid era**

The technology Accessibility to:		Technologies controlled only by the user	
		User's end technology (CI, HA)	SNR improving technologies / direct streaming
Speech understanding - quiet	Speech understanding - noise	Usage of masks and the need to keep physical distance have made communications extremely difficult regardless of the communication environment, even in quiet	
Speech understanding - noise			
Phone, TV-like sources, Zoom		+	+
Movies, Theatre performances			

Phone, TV-like sources, & Zoom

- Phone, TV-like sources & Zoom communication dominate our life now
- Effective Phone, & Zoom communication depends on ‘avoiding microphones’ i.e. on direct streaming, from the audio source to the implant without involving microphones on the way
- The direct streaming technologies are actually ‘signal-to-noise ratio’ (SNR) improving technologies, and they are constantly being improved over the last ~ 10 years (were quite poor/cumbersome ten years ago, and now – very good)

Phone, TV-like sources, & Zoom

- **However, in order to benefit from the improvements achieved in the ‘signal-to-noise ratio’ (SNR) improving technologies, an upgraded CI processor is needed**
- Unfortunately, upgrading of CI processor in Israel (and in many other countries) is offered only every 10 years or more (...and never, in some countries)
- The Covid pandemic “caught” most CI users with poor Phone, & Zoom communication abilities (even though solutions are already available)

What was done so far in order to shorten period for CI processor upgrading eligibility

- 2018: application to the **public committee for the expansion of health services** was submitted, asking to shorten the period for CI processor upgrading eligibility from 10 to 5 years – **rejected**
- 2019: re-submission – **rejected**
- 2020: re-submission – the committee recommended to upgrade processors for individuals ≤ 18 years who were implanted ≥ 5 year earlier. Valid for 1y only
- 2021 - re-submission

All applications were submitted by **Bekol – the Israeli Association for Hearing Impaired**

2022 - the committee recommended the upgrade of processors for all hearing implant users every 6 years

- Recommendations of the public committee for the expansion of health service – Update 2022

The technology	Av. Number of patients per year	Total budget per year (Million IS, 1\$=3.2 IS)
Upgrading of hearing implants including the processor 6 years after implantation / re-implantation	503	11,672 IS

- Sometimes, dreams come true
- One more step towards providing accessibility that aligns with what normally hearing individuals (NHI) are able to access from hearing