Actual status of CI and Bone Anchored Hearing Aids: audiological indications

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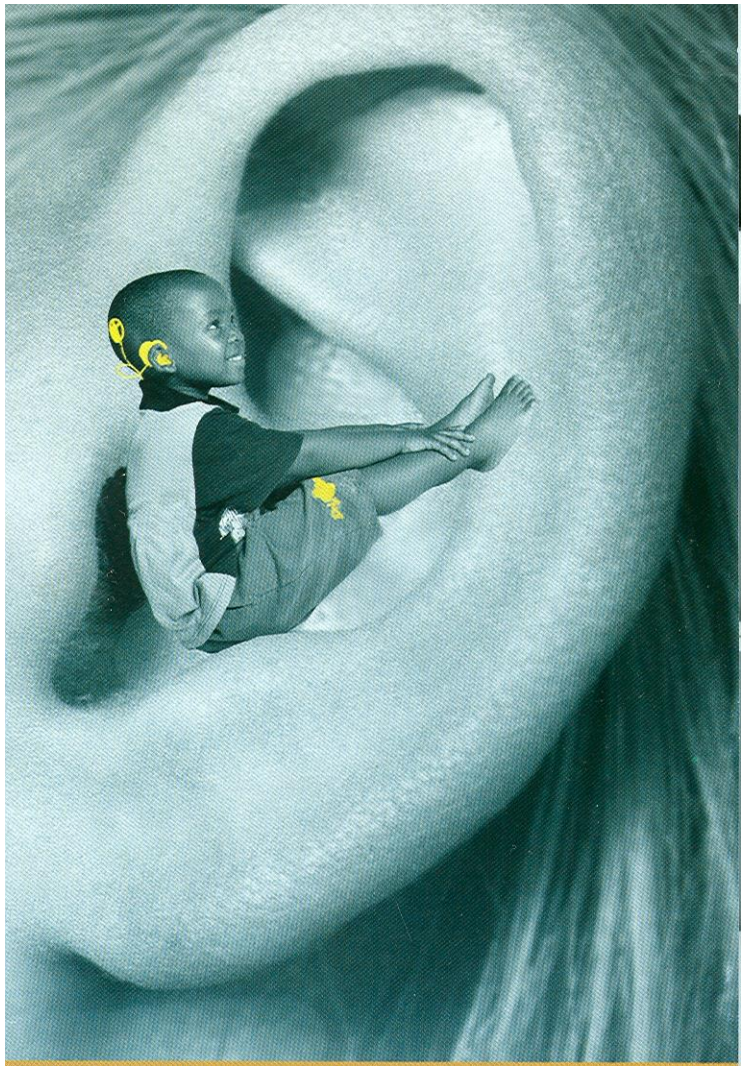
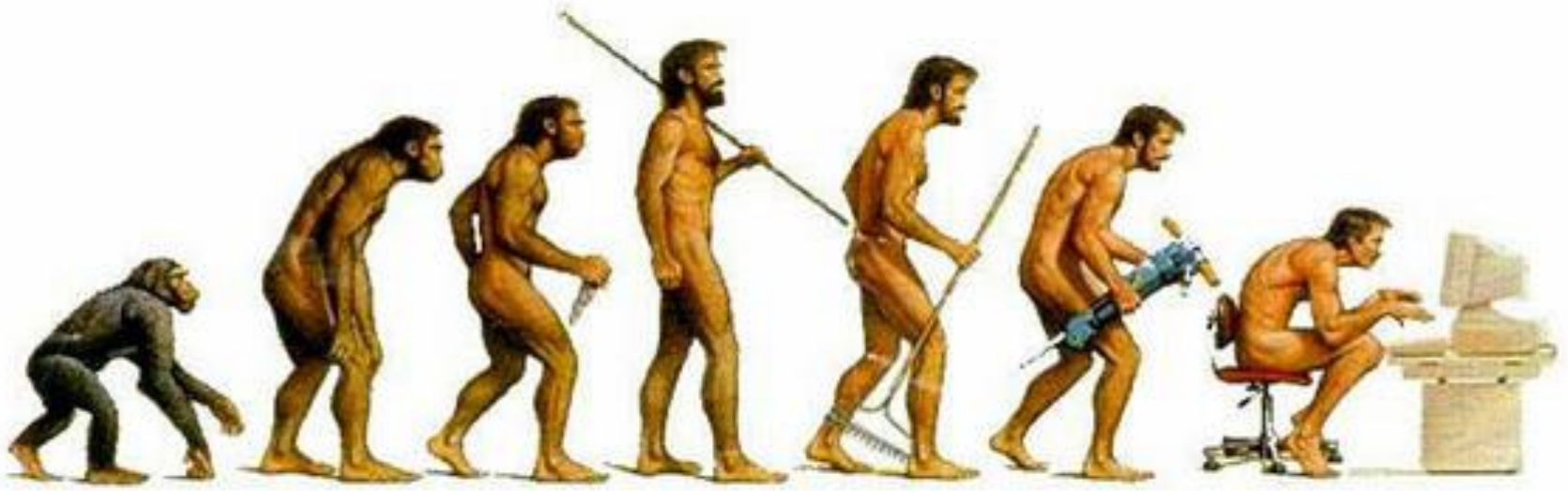


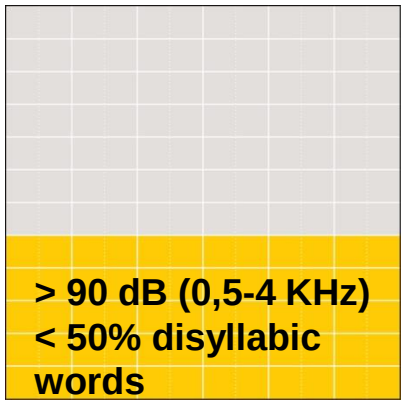
CI: Audiometric criteria

Audiometric criteria for CI



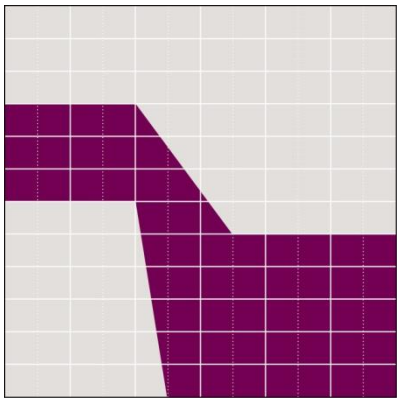
AUDIOMETRIC CRITERIA FOR CI

1 **P-SNHL**



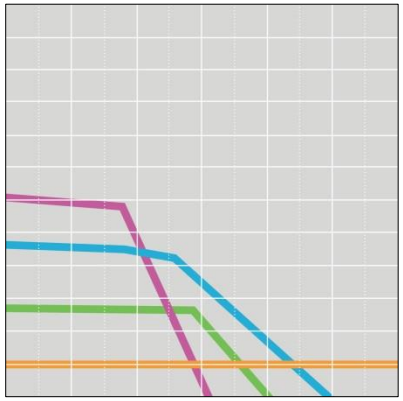
Traditional CI candidates

2 **Hight frequencies HL**



Electroacoustic candidates

3 **Specials cases**



Case by case

CI indications and terminology

Ear 1	Ear 2	Treatment	Strategy
P-SNHL	P-SNHL	CI	Unilateral CI
P-SNHL	P-SNHL	CI+CI	Bilateral CI
P-SNHL	S-SNHL	CI+HA	Bimodal
P-SNHL	M-S-SNHL	CI+HA	Bimodal Asymmetric
P-SNHL	Normal or Useful hearing	CI	SSD
S-SNHL	S-SNHL	(CI+HA)+HA	Hybrid or EA

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CI indications and terminology

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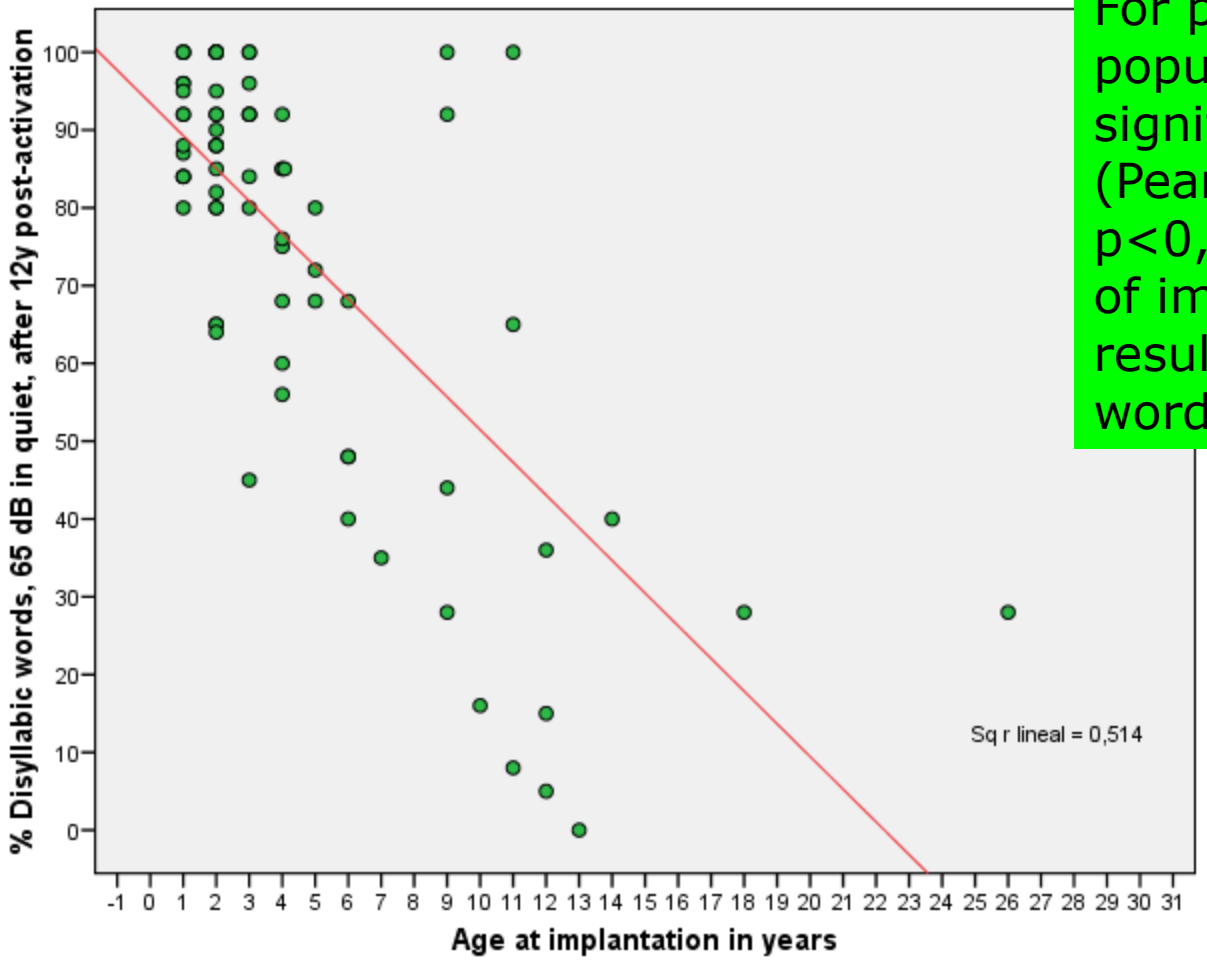
UNILATERAL CI

Prelinguals

Correlation CI age-Speech perception



For prelingual deaf population, there is a significative correlation (Pearson CC= -0.717, p<0,001) between age of implantation and the results of disyllabic words

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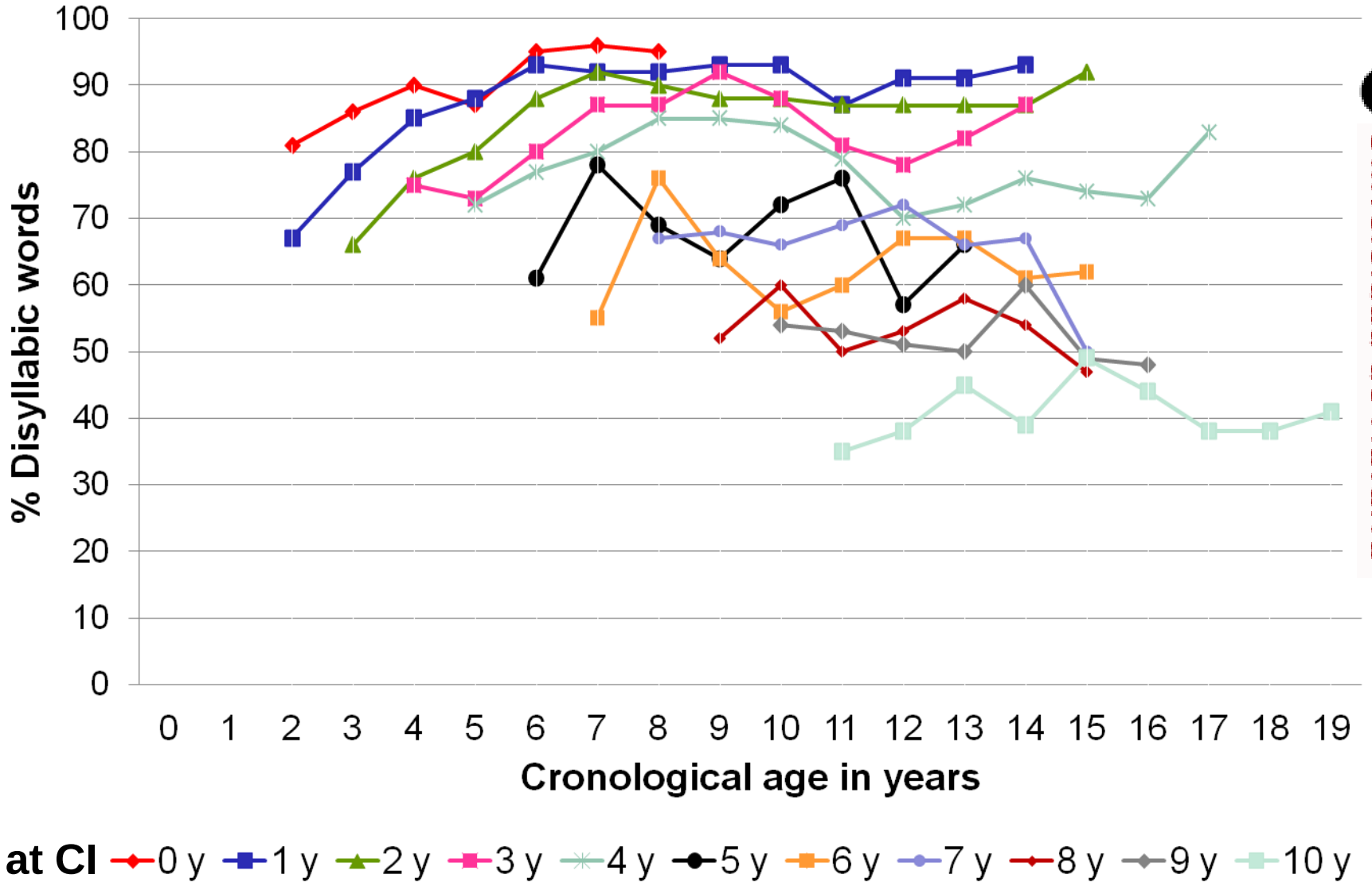
Prelingual and age at implantation

% Disyllabic words, 65 dB SPL, open-set context



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CI indications and terminology

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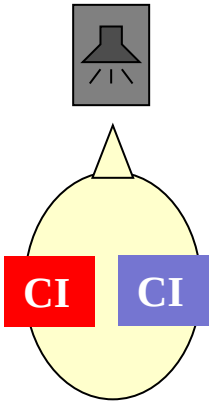
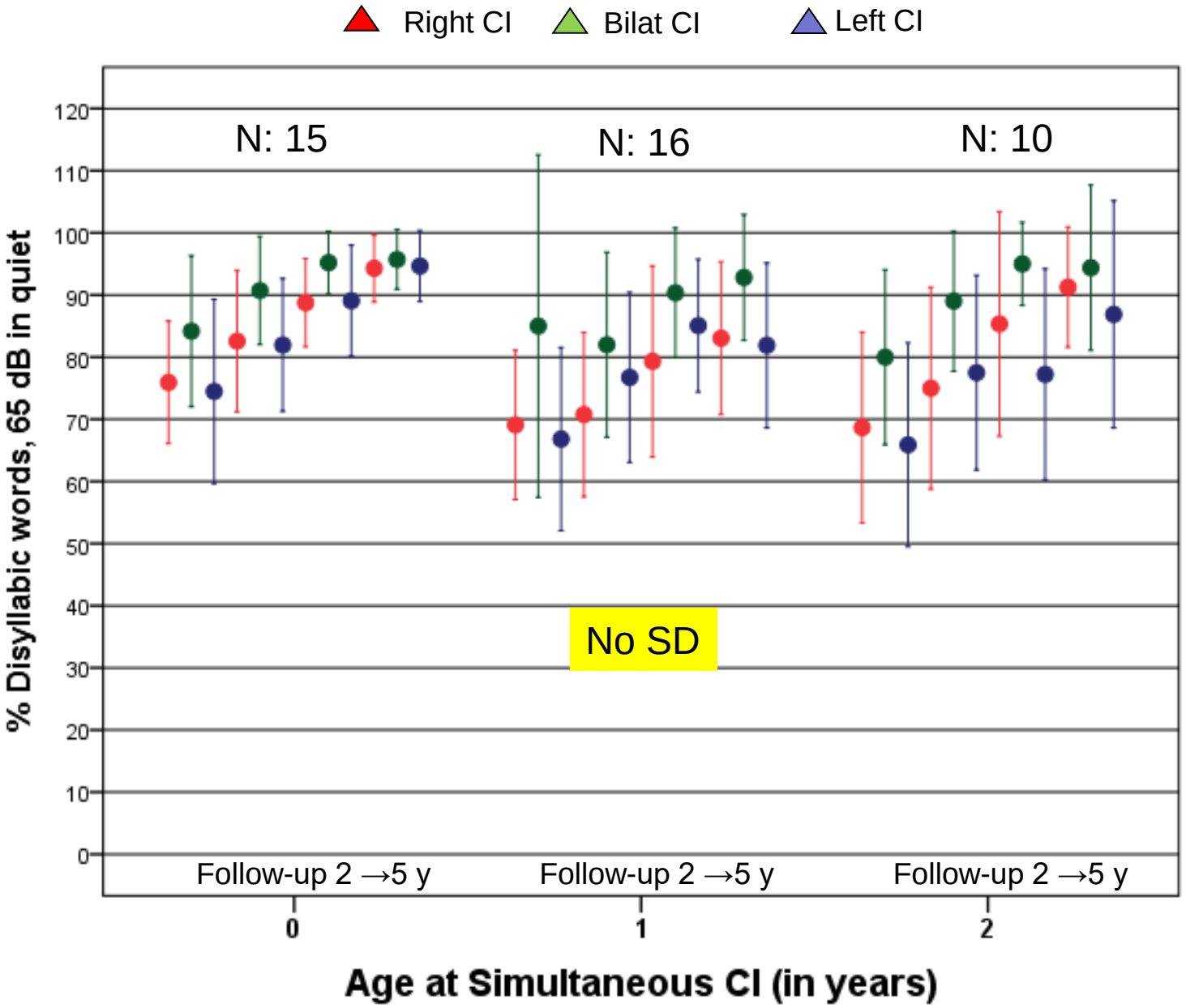
Bilateral

Unilateral

Disyllabic words, 65 dB





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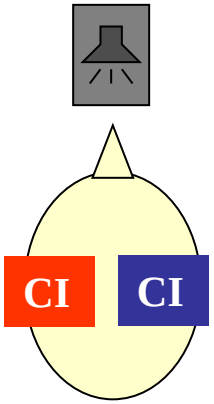
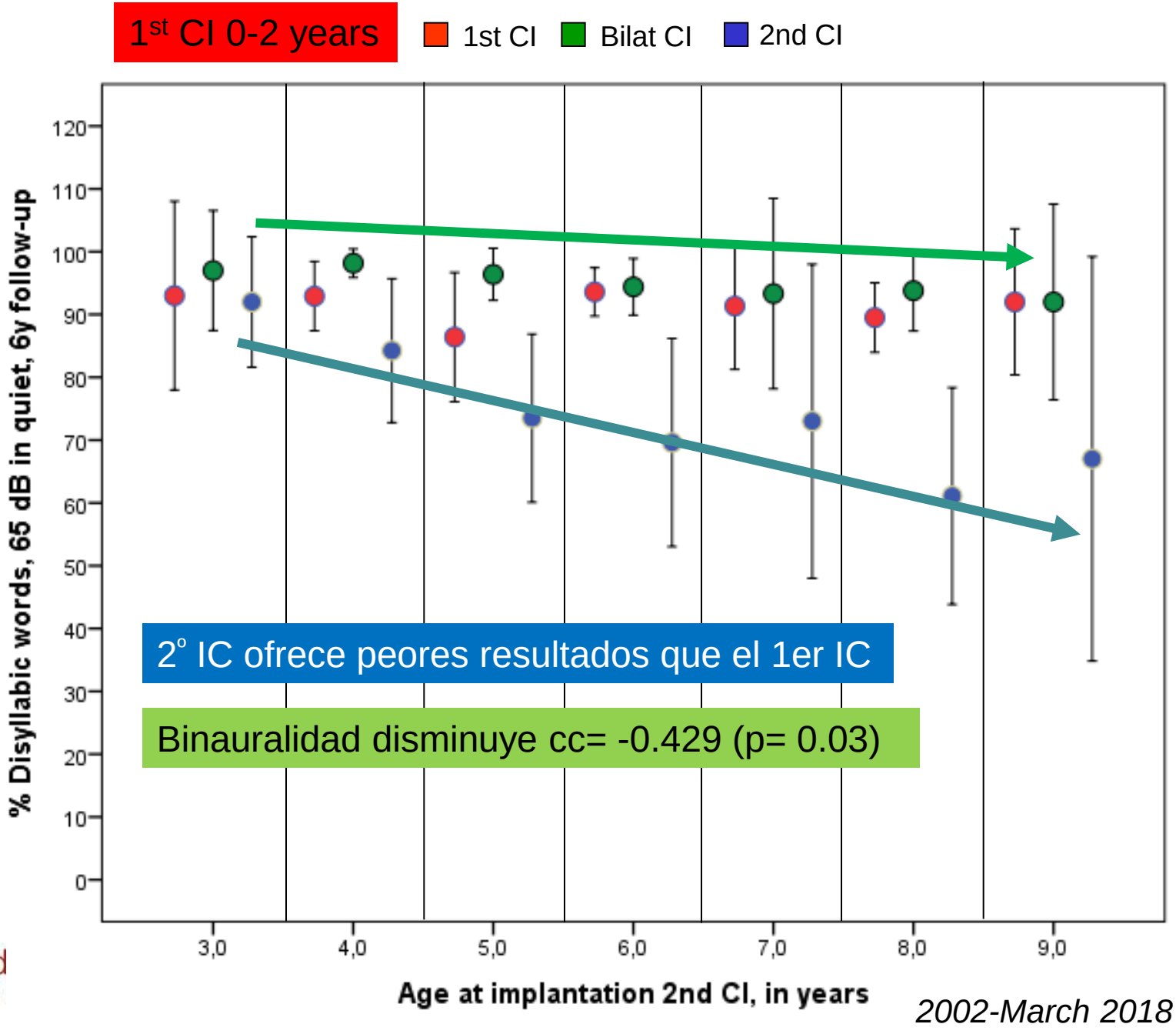
2002-April 2019

Disyllabic words, 65 dB





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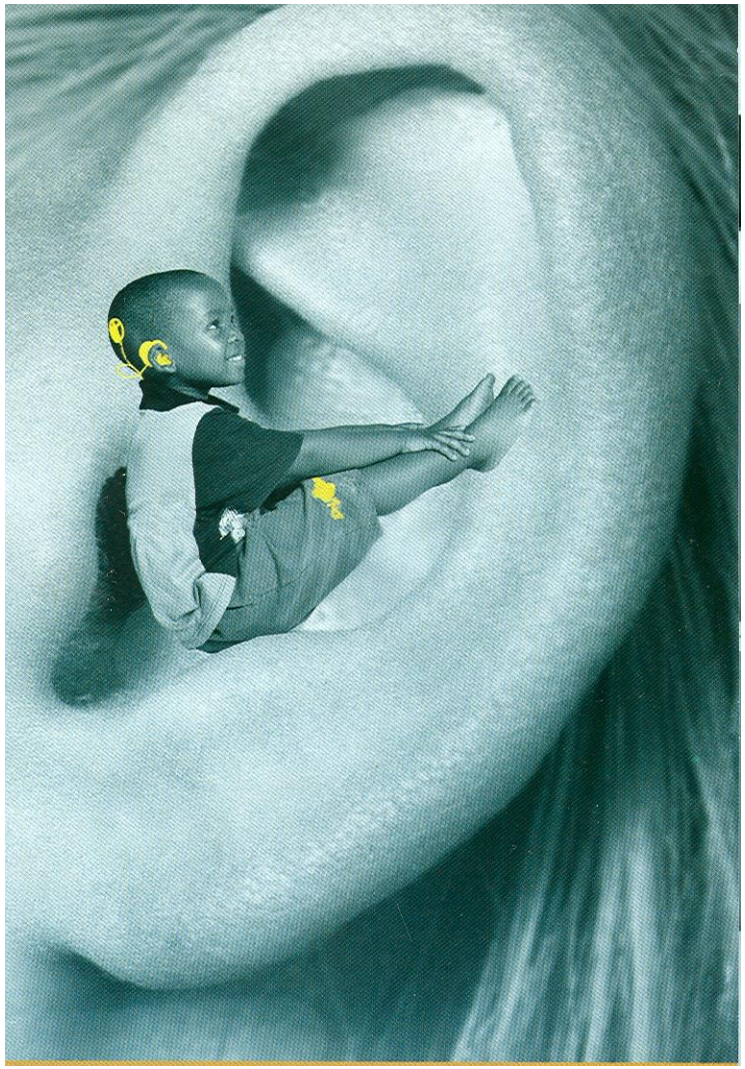
2002-March 2018

CI indications and terminology

Ear 1	Ear 2	Treatment	Strategy
S-SNHL	S-SNHL	(CI+HA)+HA	Hybrid or EA

Why atraumatic cochlear implant surgery?

- Today's children have a life expectancy of 100 years.
- We have to be extremely careful during surgery to permit them use future advances in the treatment of the hearing loss
- Better results
- Electro-acoustic stimulation



BCI: Audiometric criteria

BONE CONDUCTION IMPLANTS

CLASIFICATION

Bone Conduction Implants

Clasification

PERCUTANEOUS

- PONTO
- BAHA CONNECT

TRANSCUTANEOUS

- PASIVOS:
  - BAHA ATTRACT
- ACTIVOS:
  - BONEBRIDGE
  - OSIA

BONE CONDUCTION IMPLANTS

INDICATIONS

Bone Conduction Implants

Audiological indication

Conductive or mixed hearing loss

- Percutaneous and transcutaneous

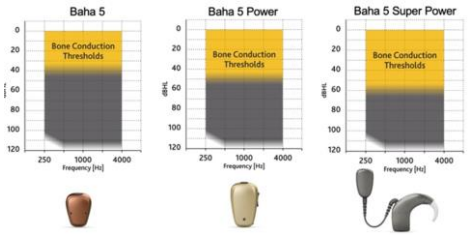
SSD

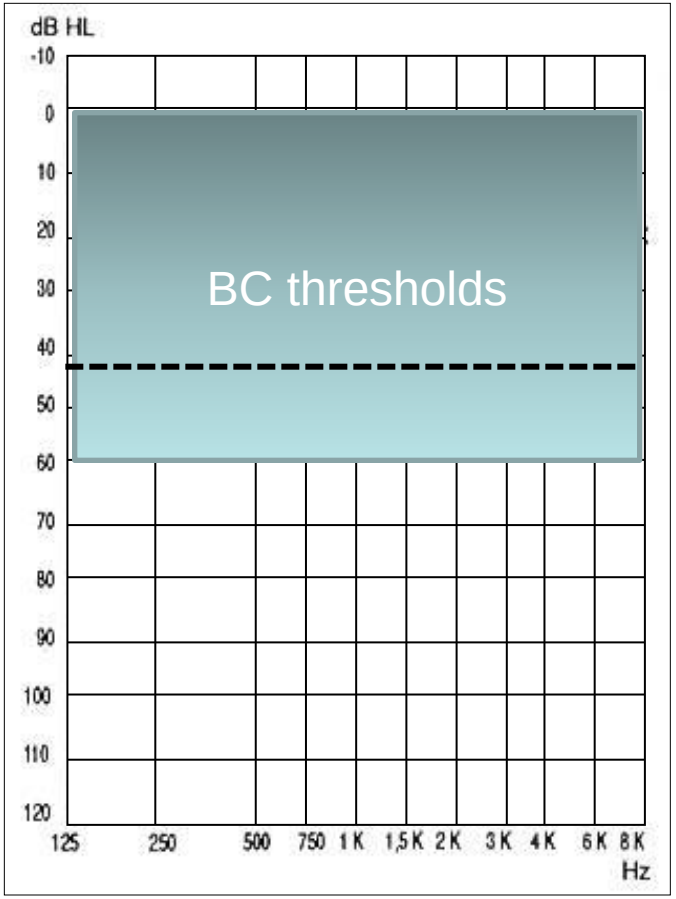
- Percutaneous and transcutaneous

Bone Conduction Implants

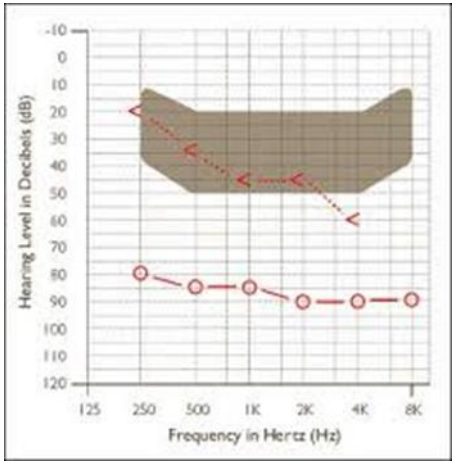
Audiological indication: CHL or MHL

PERCUTANEOUS





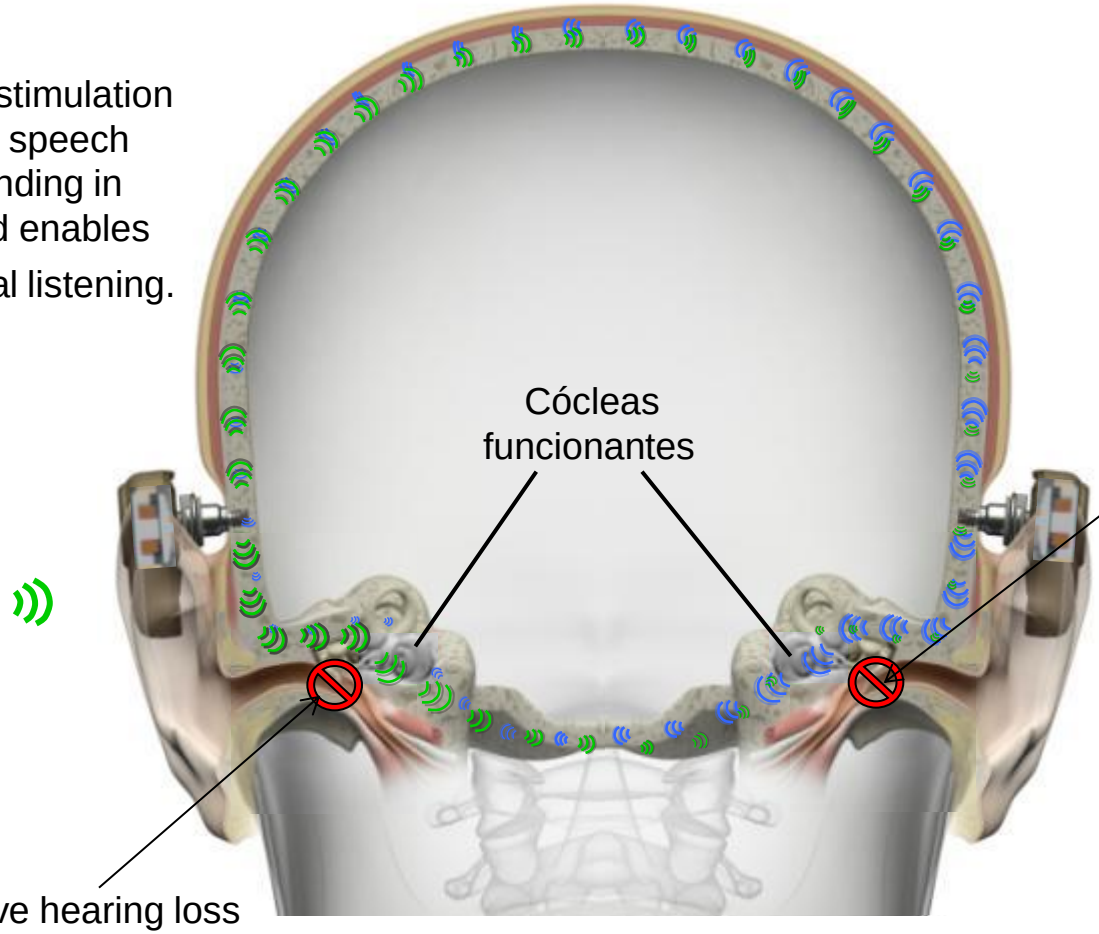
TRANSCUTANEOUS



BILATERAL CONDUCTIVE HEARING LOSS

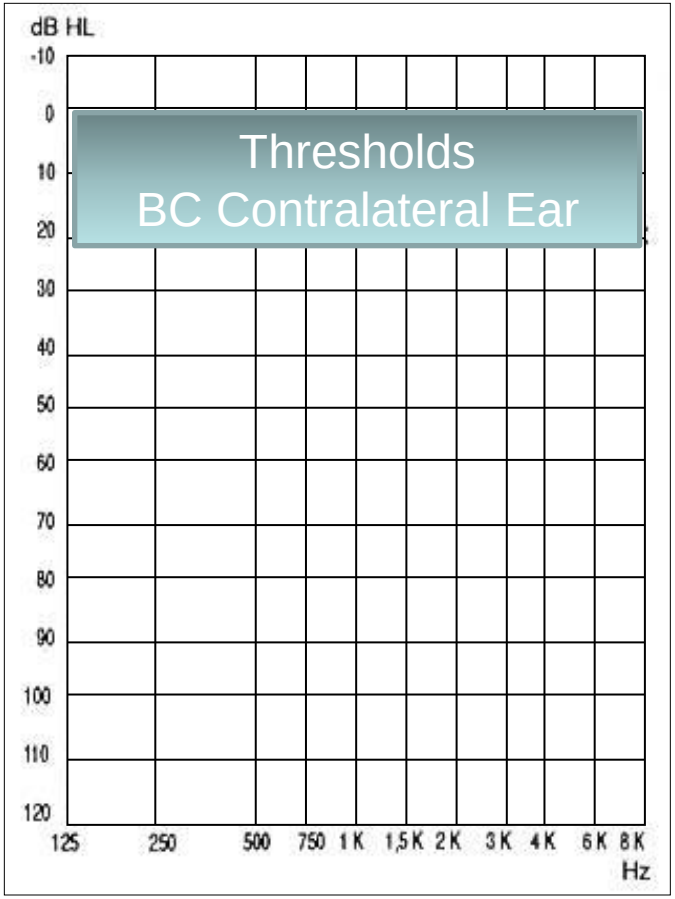
Due to transcranial cushioning, binaural (stereo) stimulation can be achieved if the patient is implanted with two devices (bilateral adjustment).

Binaural stimulation improves speech understanding in noise and enables directional listening.



Bone Conduction Implants
Audiological indication: SSD

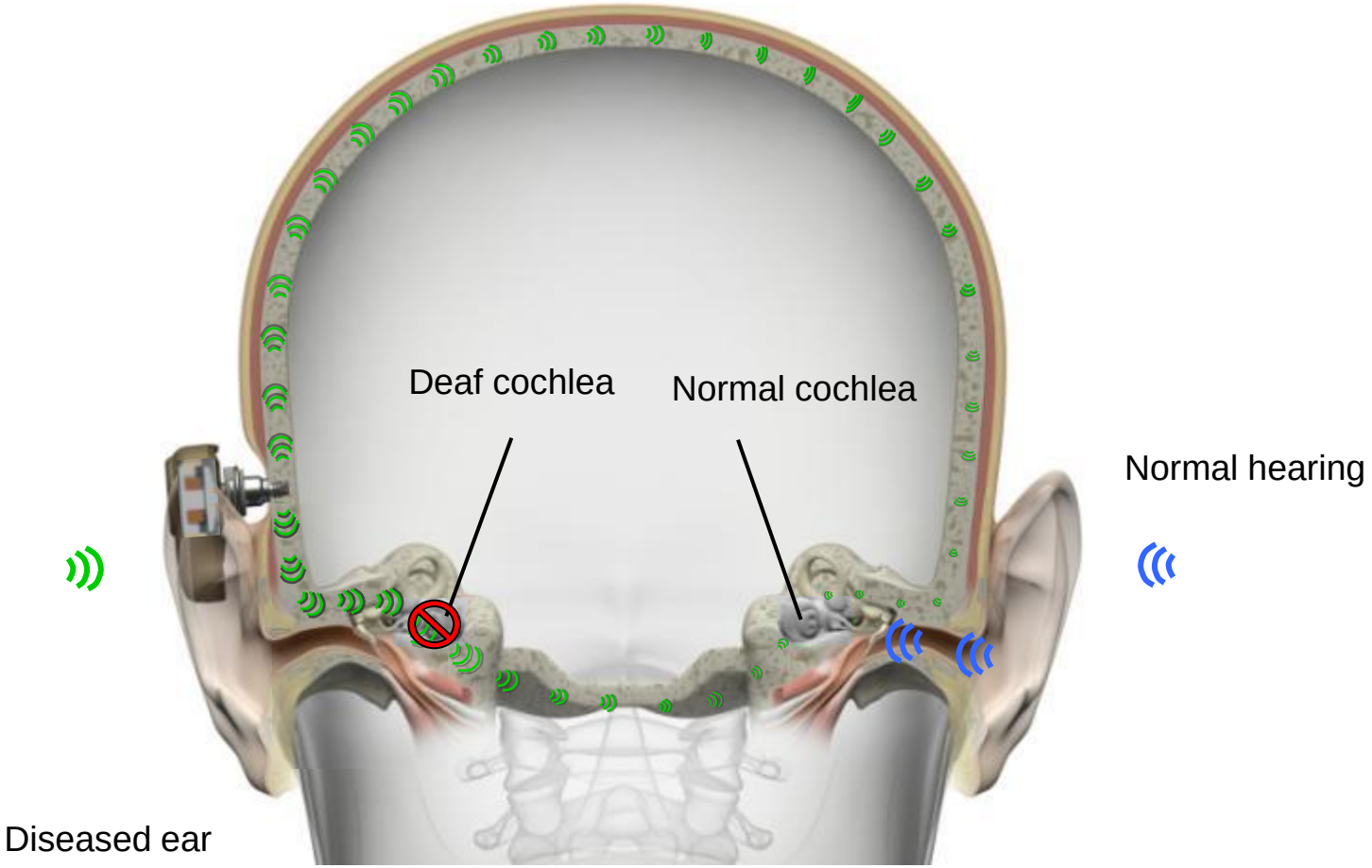
PERCUTANEOUS



TRANSCUTANEOUS

SINGLE SIDE DEAFNESS

With this device, the patient can pick up sounds coming from the side with hearing loss.
The patient does not have binaural stimulation, as there is only one cochlea functioning.



Thank you very much for your attention !!!