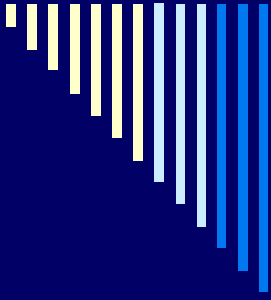



IDENTIFICATION OF CHILDREN WITH HEARING IMPAIRMENT IN ILOILO CITY

Jenelyn J. Magno, MD







High Risk Registry

A pgar score < 5 in 5 minutes

B acterial meningitis

C ongenital infection (TORCH)

D efects of head and neck

E levated bilirubin level



High Risk Registry

F amily history

G ram weight < 1500grams

H istory of NICU enrollment

I ntake of ototoxic drugs



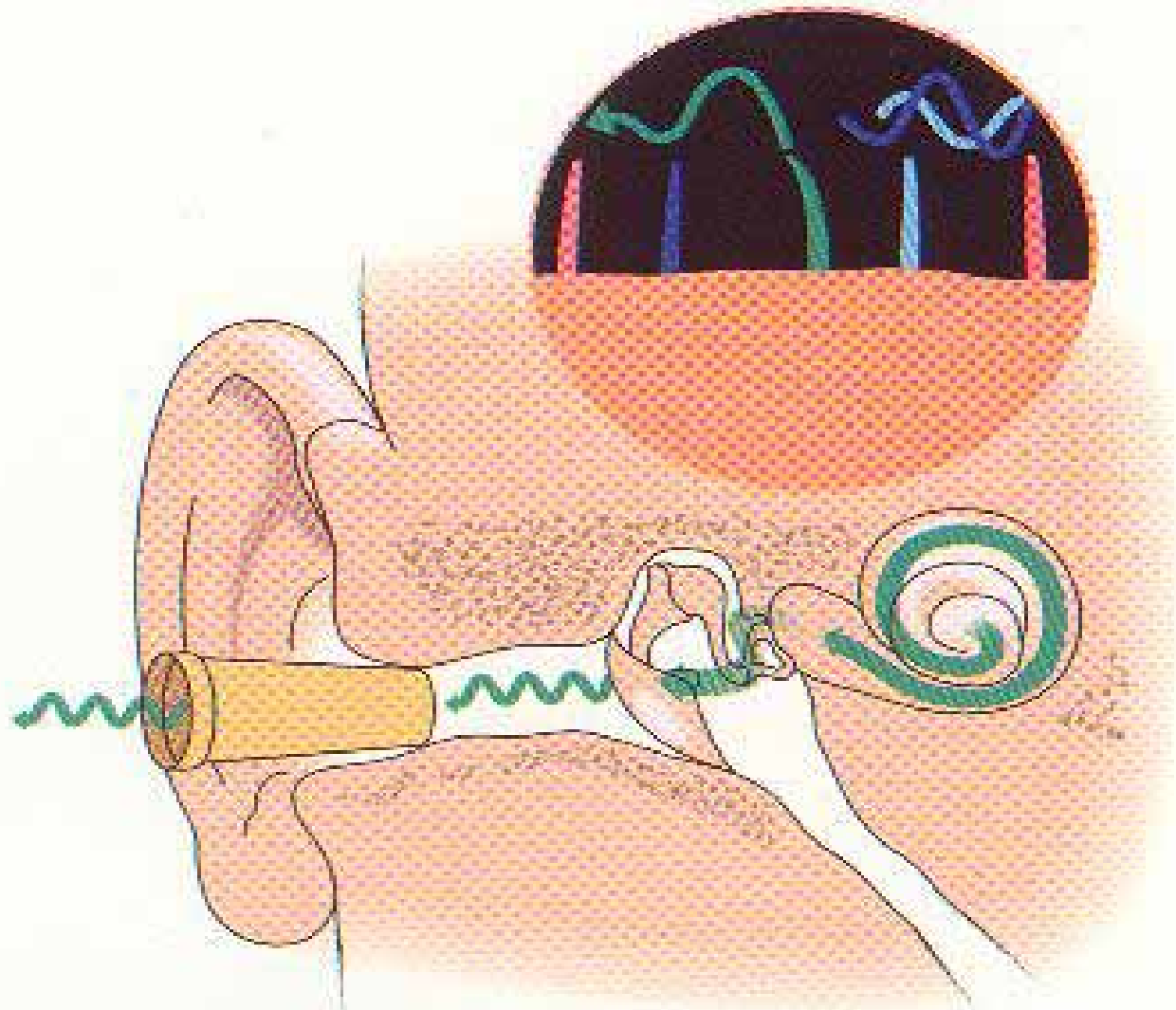
Auditory Milestones

Age (in months)	Description
0 - 3	<ul style="list-style-type: none">-startles at a loud sound or noise-stops moving or crying when you call
3 - 6	<ul style="list-style-type: none">- turns head or move eyes to a familiar sound
6 - 10	<ul style="list-style-type: none">- responds to his/her own voice



Auditory Milestones

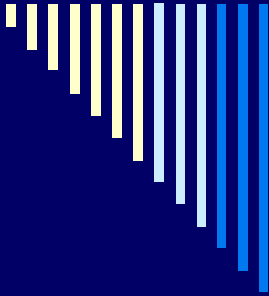
Age (in months)	Description
10 - 15	-Repeats simple words and sounds you make
15 - 18	- Understand simple phrases and can point to body parts
18 - 24	- should have at least 150 spoken vocabulary





Otoacoustic Emissions

- Sounds generated by the cochlea that can be measured in the external auditory canal
 - Produced by the motile activity of the outer hair cells
-



SpecMaster 551a



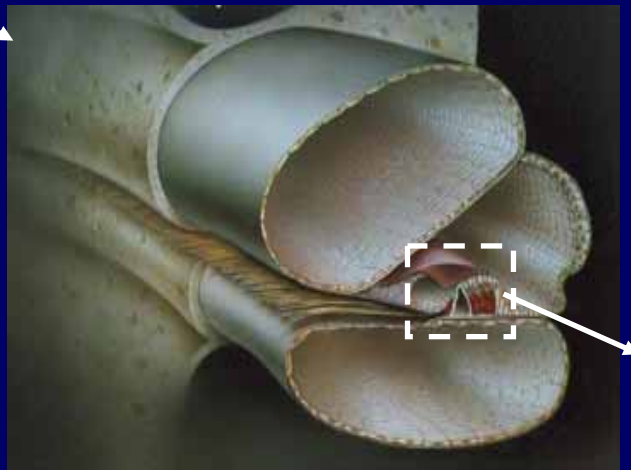
SAMSUNG

OUTER HAIR CELLS IN THE ORGAN OF CORTI

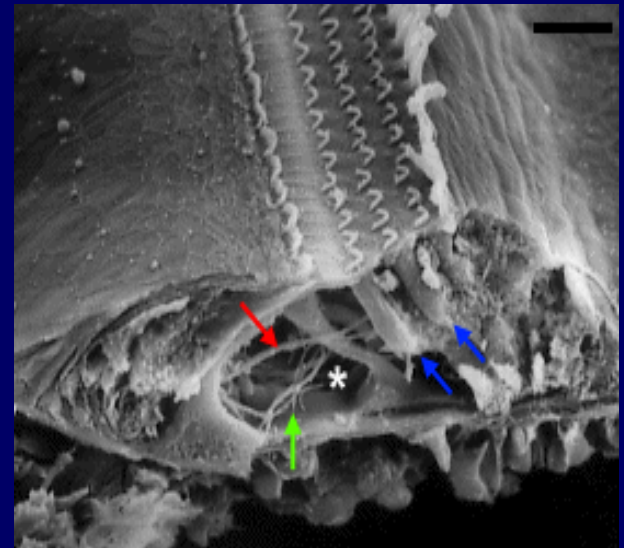
The Ear



Cross-section of the cochlea



Organ of Corti



INNER AND OUTER HAIR CELLS

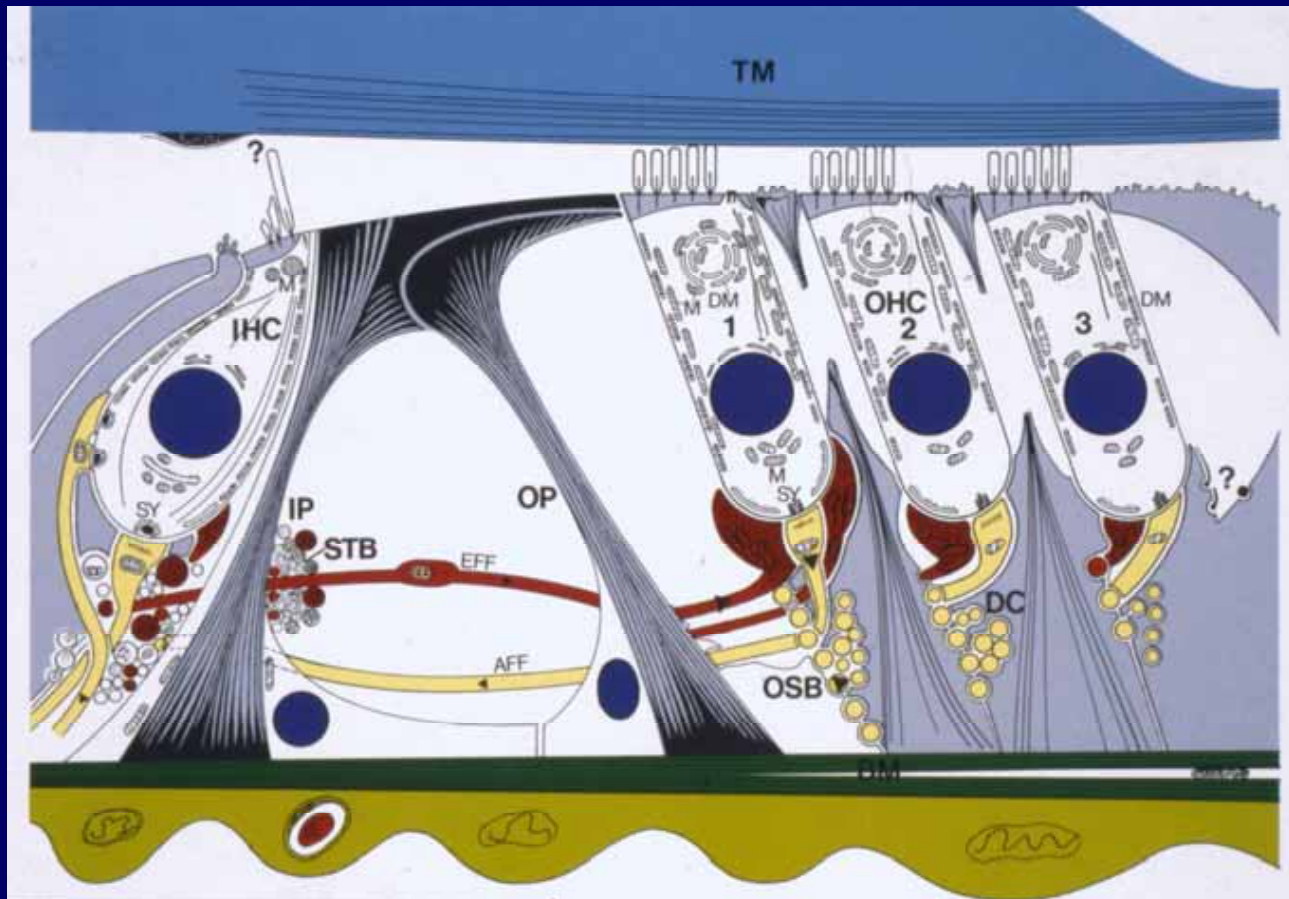
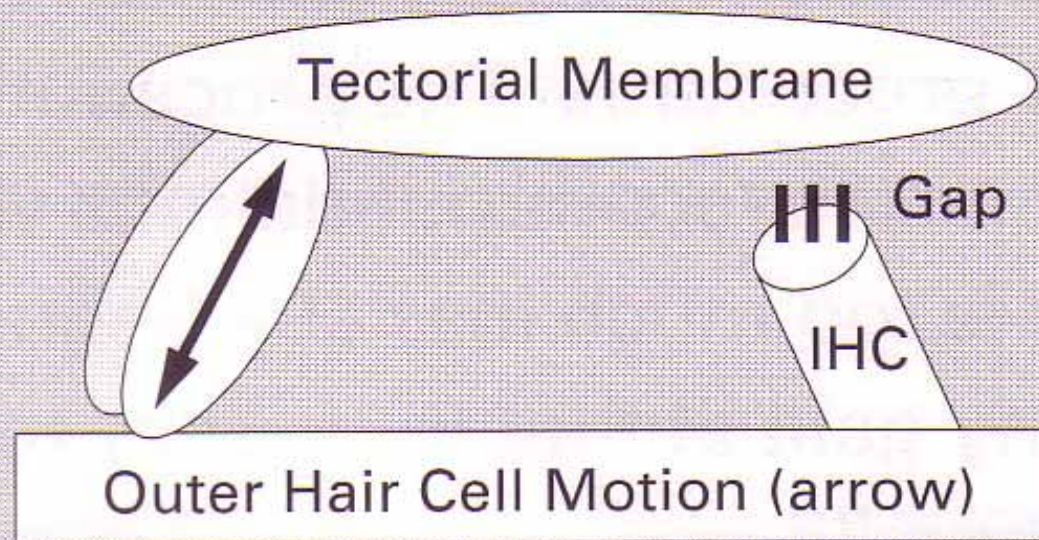


Figure 1

Outer Hair Cells May Close or Modulate the Gap between Inner Hair Cells (IHC) and the Tectorial Membrane

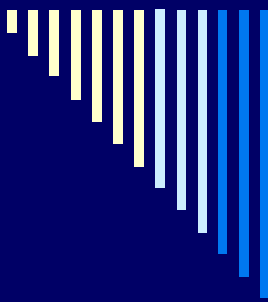


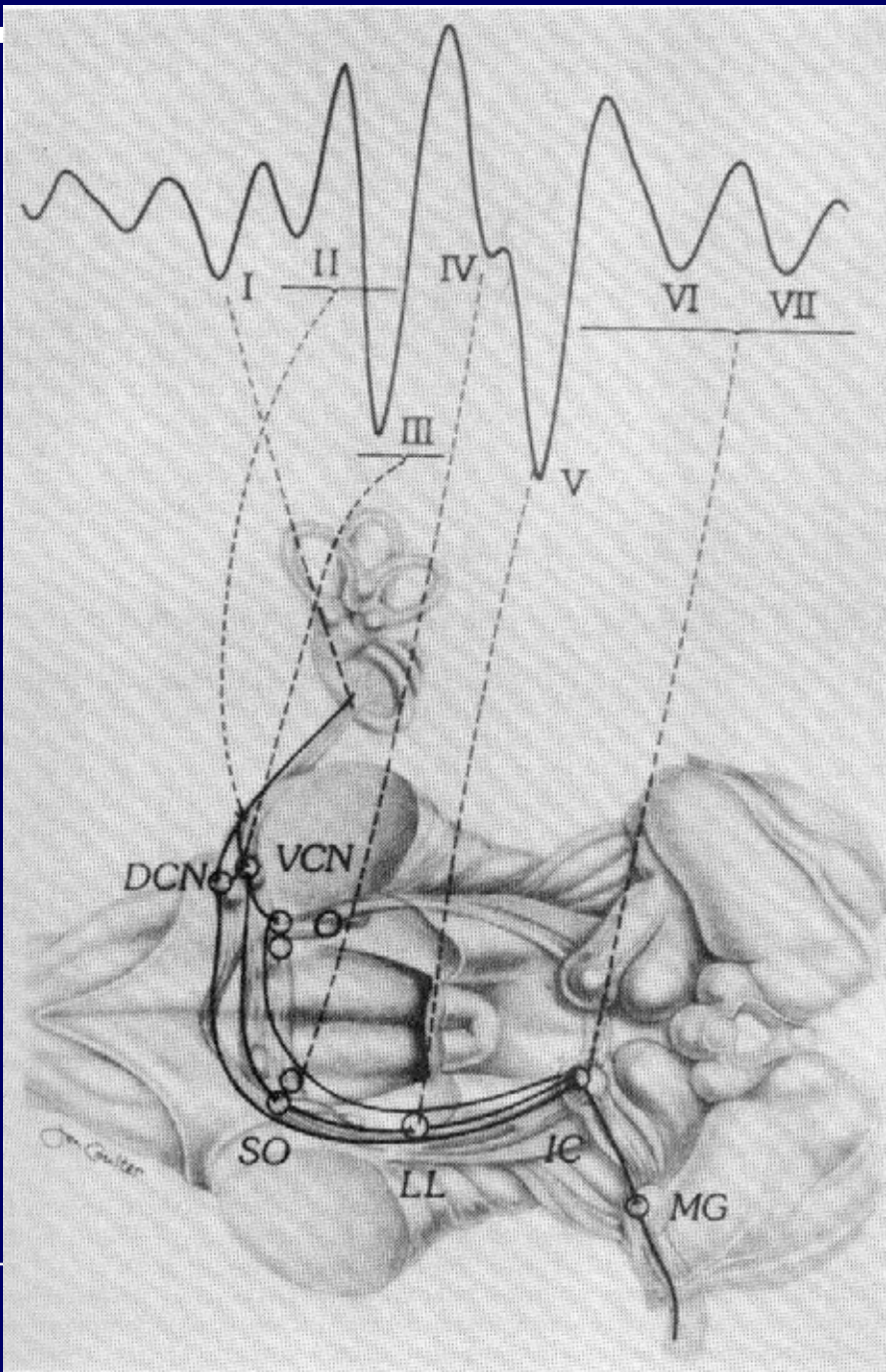
Berlin (1999)



OAE

No. of Px.		Result	
Male	Female	Refer	Pass
6	3	6	3







NEURAL GENERATORS

- I. Distal part of the 8th nerve
 - II. Proximal part
 - III. Cochlear Nucleus
 - IV. Cochlear Nucleus, Superior Olivary Complex, Lateral Lemniscus
-



ABR

No. of Px.		Result	
Male	Female	Normal	Abnormal
3	1	3	1









Buntatala-Tagbac Elem. Sch.

Total	Male	Female	OM	IC	FB	Perf
356	146	210	4	93	1	3









Cabatuan

Total	Impacted	OM
20	3	1

Normal	Mild	Moderate	Severe	Profound
8	1	3	2	3



Maasin

Total	Impacted	OE	OM
64	6	4	18

Normal	Mild	Moderate	Severe	Profound
13	5	10	6	5



What about him?

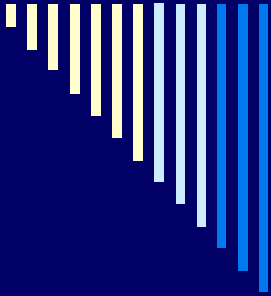




Problems

1. Availability of newborn hearing screening tools
 - otoacoustic emissions
 - automated auditory brainstem response
 2. Cost of a newborn hearing screening
 3. Availability of management options
 - hearing aids, cochlear implants
 - subsequent speech and language therapy
 4. Information campaign about the newborn hearing screening
-





Thank You

