



# Noise-Induced Hearing Loss

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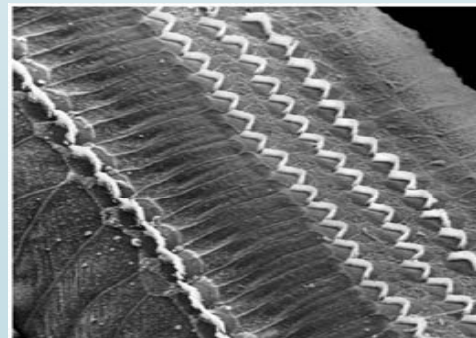
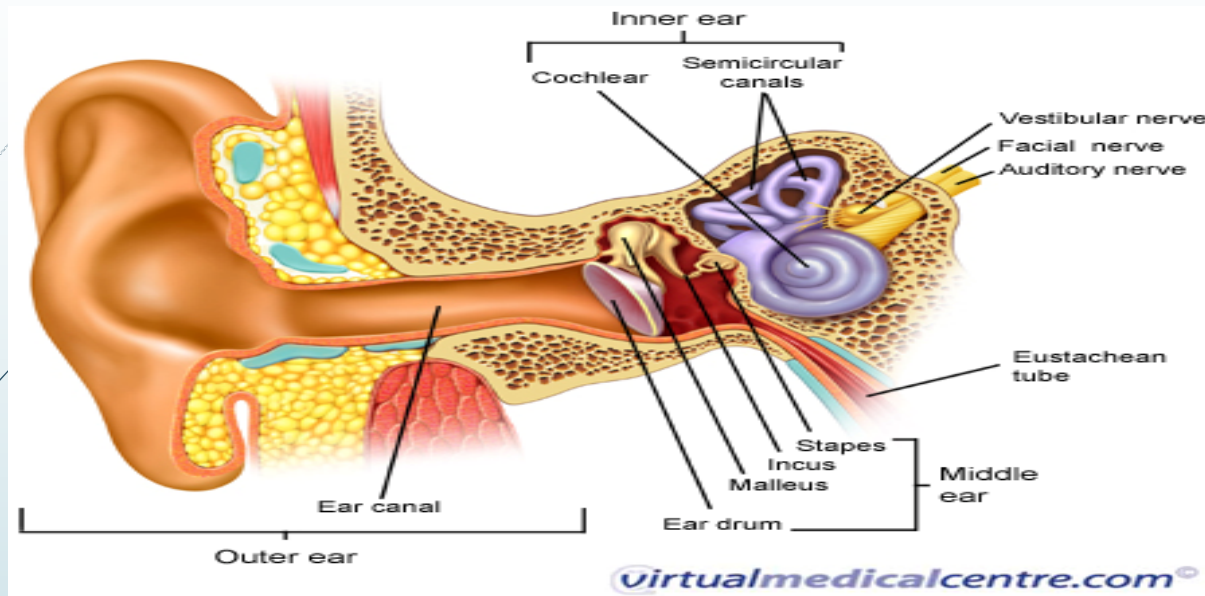
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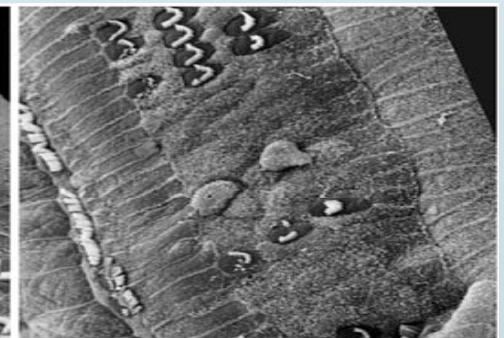
# Introduction

- What is Noise?
- Range of hearing
- Hearing Loss (excessive noise, accidents, illness, aging, chemicals.)
- Other symptoms: Tinnitus, Hyperacusis, Dizziness, some pain in the ear.
- Noise-Induced hearing Loss

# Mechanism

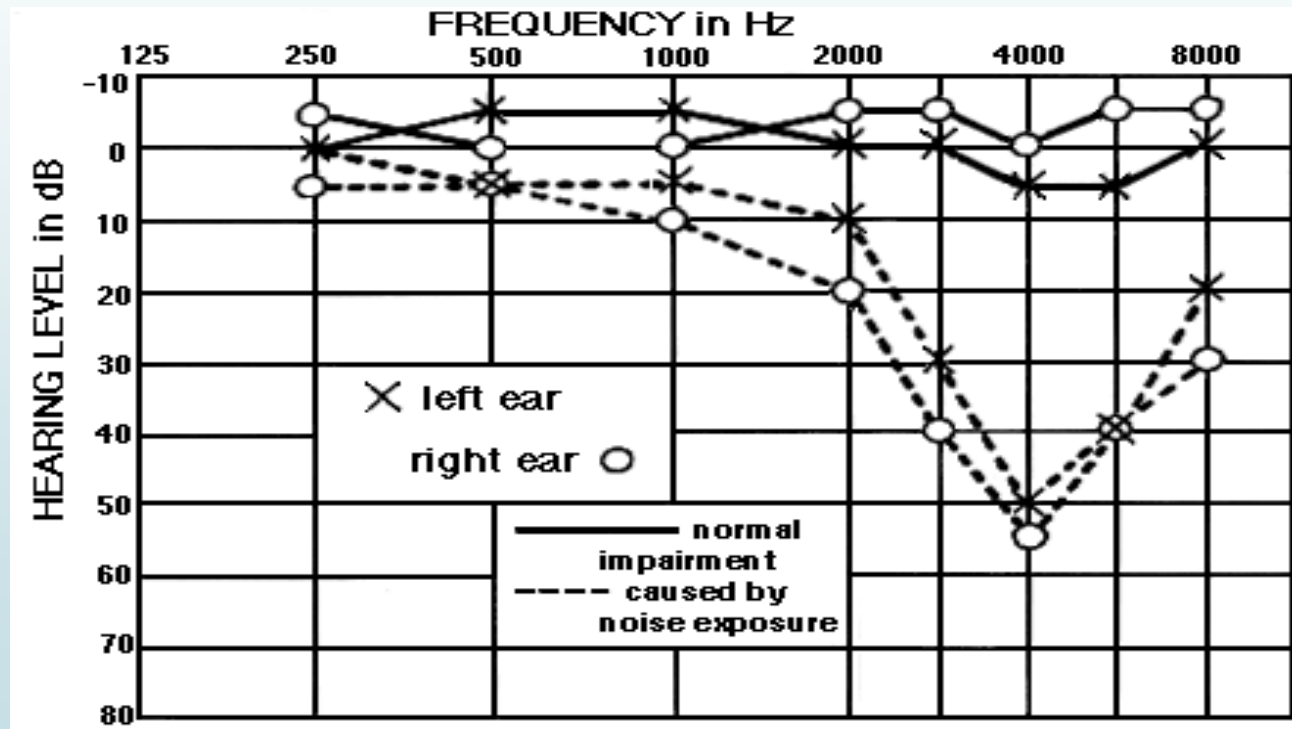


Intact cochlea



Damaged cochlea

# NIHL on Audiogram Vs Normal Audiogram



# NIHL in Construction

- Source
- Causes
- Control
- Prevention



# Sources

- Tools
- Task
- Trade
- Stage of Construction
- Type of Construction

DECIBEL - dB(A)	EQUIPMENT
Double protection recommended above 105 dB(A)	
112	Pile driver
110	Air arcing gouging
108	Impact wrench
107	Bulldozer - no muffle
102-104	Air grinder
102	Crane - uninsulated cab
101-103	Bulldozer - no cab
97	Chipping concrete
96	Circular saw and hammering
96	Jack hammer
96	Quick-cut saw
95	Masonry saw
94	Compactor - no cab
Hearing protection recommended above 85 dB(A)	
90	Crane - insulated cab
87	Loader/backhoe - insulated cab
86	Grinder
85-90	Welding machine
85	Bulldozer - insulated cab
60-70	Speaking voice



# Causes

- Intensity of sound
- Frequency of sound
- Duration
- Occupational noise
- Non-occupational noise





# Controls

- Engineering Control
- Administrative Control
- Hearing Protection Devices (HPDs)

# Prevention

- Treatment
- Medication
- Awareness
- Training/ workshop.
- Communication
- Mandatory HPDs.
- Hearing Conservation Program



# Hearing Conservation Program(HCP)

- Identifying noise hazard
- Exposure Monitoring
- Assessment and Corrective actions
- Hazard Communication
- Worker Education
- Periodic Review





- Hair Cells (inner ear) once gone, gone forever.
- Lot of sources of NIHL in construction
- Less engineering Control but proper administration and HPDs can protect a lot.
- HCP is essential on every site.