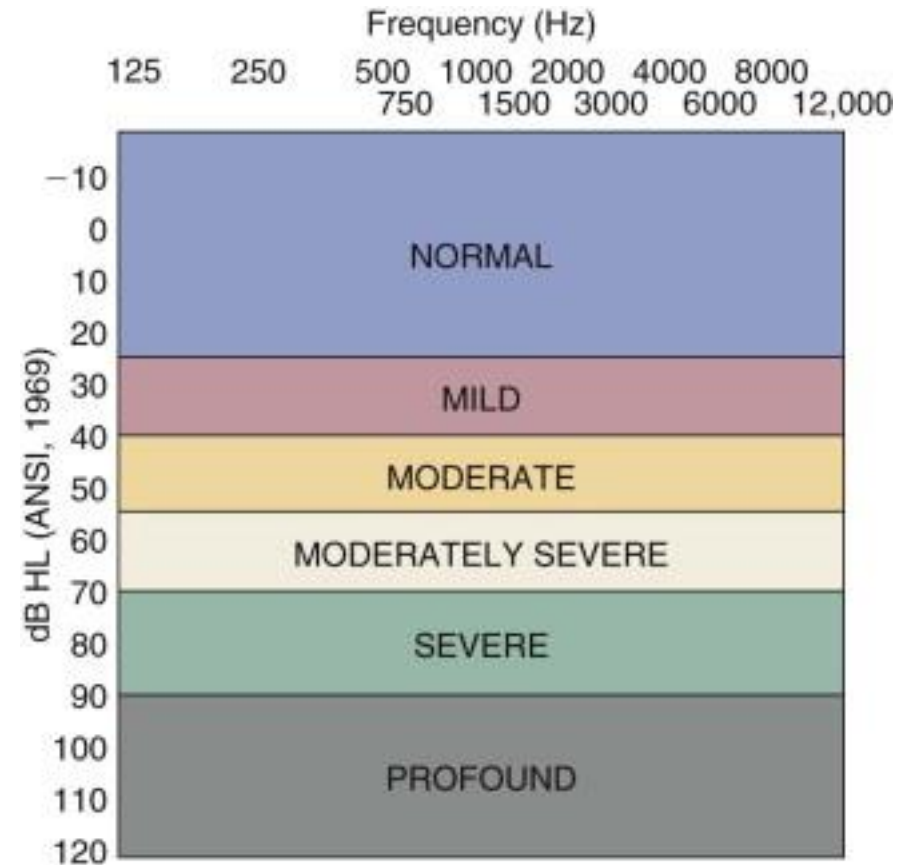


Evaluation of hearing loss

聽力障礙之嚴重程度

Severity of hearing loss

- Hearing Loss is described as a range
- Ranges from Mild through Profound

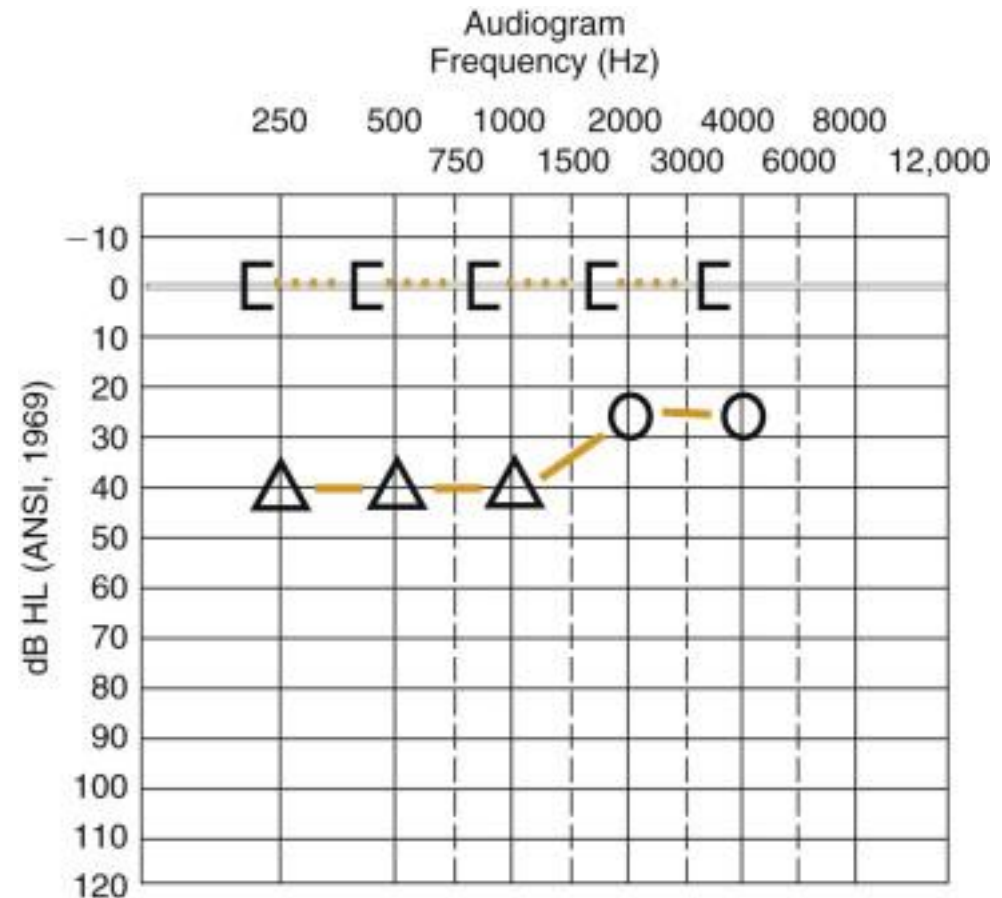


聽力障礙的種類

Types of Hearing Loss

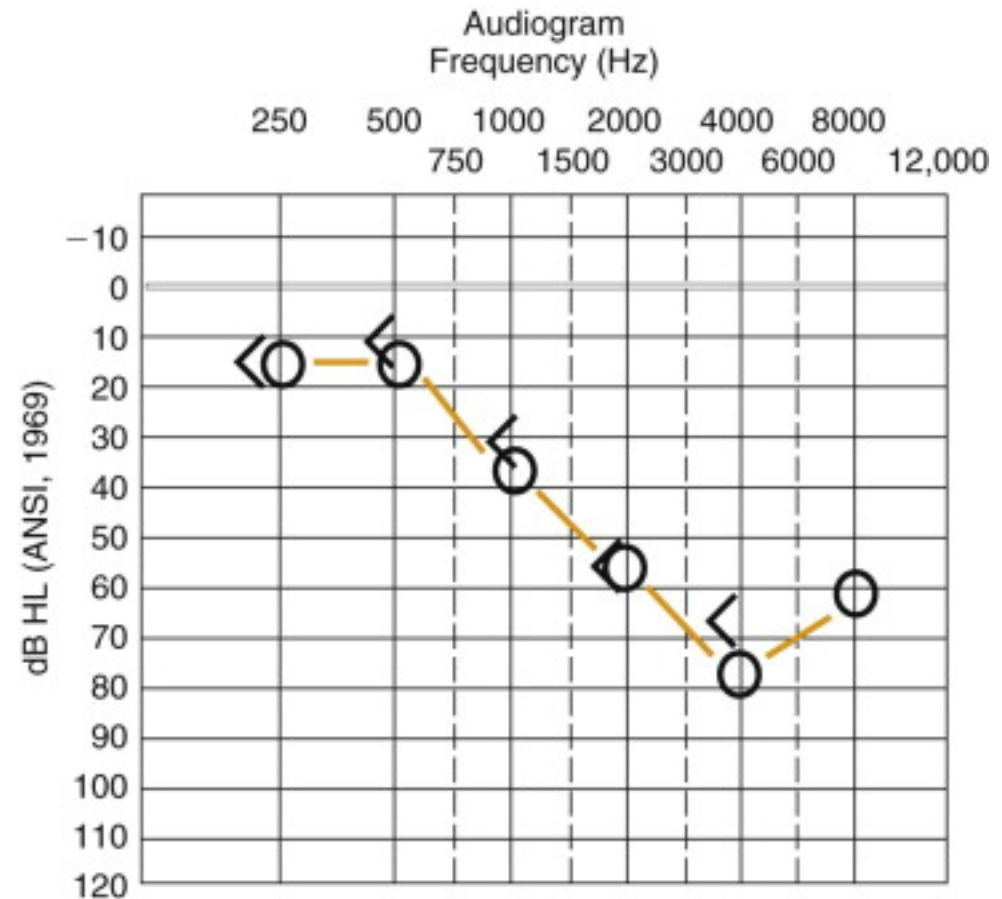
Conductive Hearing loss-
Primarily caused by
damage to the outer or
middle ear

Bone conduction is within
the normal range, Air
Conduction is not



Types of Hearing Loss

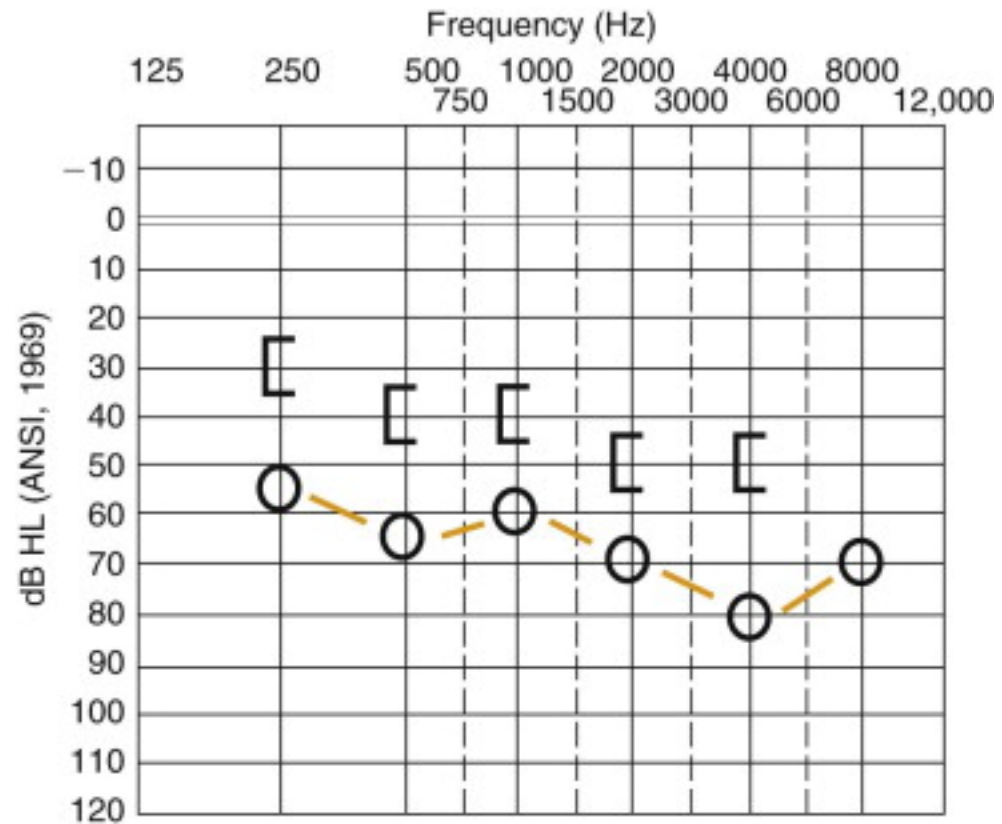
Sensorineural-
Damage to the
Cochlea or beyond



Types of Hearing Loss

Mixed Hearing Loss

- Has both conductive and sensorineural components



聽力障礙的病因

Etiology

Cause to hearing loss

- **OUTER EAR CAUSES:**

- **Congenital**

- **Infection**

- **Trauma**

- **Tumor**

- **Systemic disease**

- **Cerumen**

Cause to hearing loss

- **MIDDLE EAR CAUSES**
 - **Congenital**
 - **Eustachian tube dysfunction**
 - **Infection**
 - **Tumors**
 - **Otosclerosis**
 - **Tympanic membrane perforation**
 - **Middle ear barotrauma**

Cause to hearing loss

● INNER EAR CAUSES

- Congenital or hereditary
- Infection
- Meniere disease
- Noise exposure
- Trauma
- Tumors
- Autoimmune hearing loss
- Ototoxic substances
- Neurogenic

聽力障礙之病史詢問及身體檢查

Ear-focused history taking

- What was the onset and progression of the hearing loss?
- How well can the patient understand spoken words?
- Is the problem mainly with background noise (eg restaurants, parties) or is it just as bad in quiet settings?
- Is there pain or drainage out of the ear associated with the hearing loss?
- Is there a history of significant trauma, including noise and barotrauma?
- Is there a history of major infections?

Ear-focused history taking

- Is there a history of previous ear surgery?
- Is there associated tinnitus, vertigo, or disequilibrium?
- Is there a family history of hearing loss? There are a number of congenital and hereditary causes of hearing loss; presbycusis also can run in families.
- What medications are taken?
- Do headaches or visual disturbances occur before, during, or after episodes of hearing loss?
- What medications, including over-the-counter drugs, is the patient taking?
- History of other medical disorders such as diabetes, smoking, coronary artery disease, autoimmune diseases.

Ear-focused physical examination

- **Examination of the ear** — (otoscopy)

- examination of the auricle and EAC to look for blockage of the EAC
- The tympanic membrane (TM) should be viewed to ensure that there is no middle ear abnormality such as fluid or TM perforations.

- **Weber test** 比不同耳之骨導

- pressing the handle of the tuning fork to the bridge of the forehead
- asking the patient if the sound is louder in one ear or the other.
- The sound is heard equally in both ears in patients with normal hearing or symmetric hearing loss.

- **Rinne test** 比同一耳之氣導及骨導

- the tuning fork is placed on the mastoid bone behind the ear (bone conduction), versus when the tuning fork is held near the ear (air conduction)
- An abnormal result occurs when sound is at least equally loud or louder when the fork is placed on bone (bone>air conduction)