



# Meniere's Disease

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# Introduction:–

- ⊠ In 1861 Prosper Meniere described a syndrome characterized by deafness, tinnitus, and episodic vertigo. He linked this condition to a disorder of the inner ear.

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# Definition:–

- ⊠ It is a syndrome characterized by a **tried** of symptoms; attacks of incapacitating vertigo, Sensorineural hearing loss & Tinnitus.

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# Incidence:–

- It is usually occur in adulthood.

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# Etiology:-

- Unknown

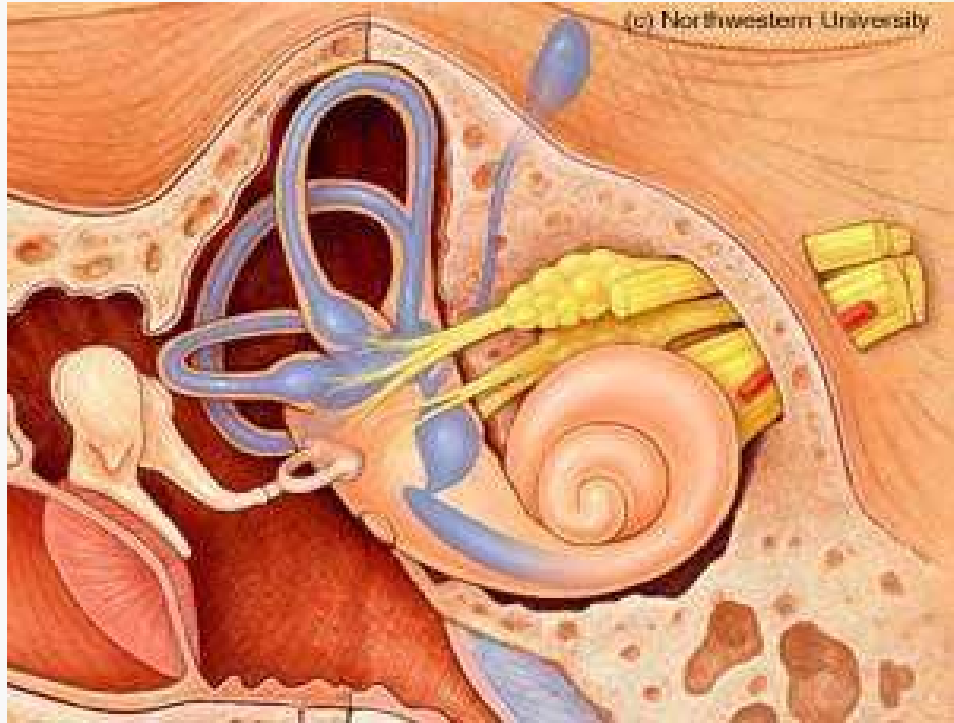
## Risk factor:-

- ✓ Metabolic disorder
- ✓ Toxicity
- ✓ Allergies
- ✓ Emotional factor
- ✓ Circulatory disorder
- ✓ Anatomical abnormalities

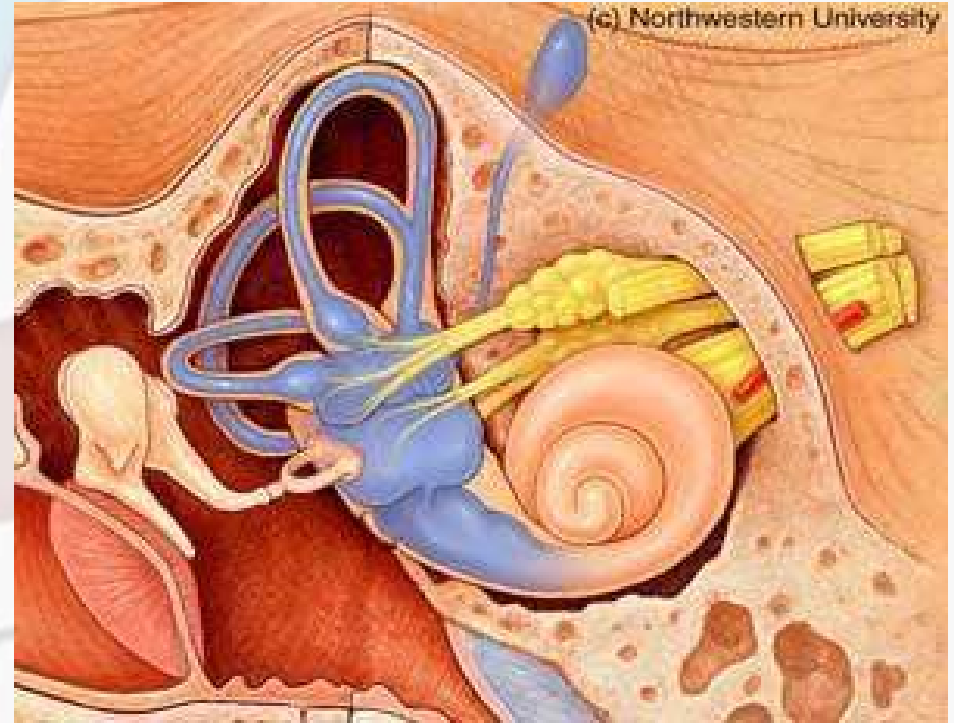


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Normal membranous labyrinth



Dilated membranous labyrinth in Meniere's disease (Hydrops)



# Pathophysiology:–

Due to etiological factors



Over production of endolymph Excessive



accumulation in inner ear



Increase pressure Rupture of



membrane



**Permanent loss auditory & vestibular function**

# Clinical manifestation:

- ⊠ Periodic episodes vertigo or dizziness
- ⊠ Tinnitus
- ⊠ Sensorineural Hearing loss
- ⊠ Fullness/pressure
- ⊠ Nausea, vomiting, Diarrhea
- ⊠ Increase pulse rate
- ⊠ Diaphoresis
- ⊠ Disorientation

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# Diagnostic evaluation:-

## ⊠ History

Pattern of symptoms Association between hearing loss, tinnitus, and vertigo

## ⊠ Physical examination

## ⊠ Otoscopic examination

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- ⊠ **Rinne** (usually indicates that air conduction remains better than bone conduction) & **weber test**(Assess the bone conduction of sound with Tuning fork)
  
- ⊠ Audiometric examination
  
- ⊠ Electronystogmography(ENG)
  
- ⊠ Audiometric brain stream response



# Management:-

## ⊠ Goal

To Control vertigo Preserve hearing  
Stabilize tinnitus

## Nonpharmacological management:-

- a. Low sodium diet
- b. Labyrinthine compensatory exercise
- c. Avoidance of caffeine, nicotine & alcohol

# Pharmacological management:-

- ⊠ Vestibular suppressants (eg, meclizine)
- ⊠ Diuretics (eg, hydrochlorothiazide) actually decrease the fluid pressure load in the inner ear.
- ⊠ Vasodilator
- ⊠ Anticholinergic
- ⊠ Antiemetic eg. Trimethobenzamide 250 mg TDS
- ⊠ Anti-inflammatory (steroids)

# Surgical management:-

- ⊠ Ototoxic ablation therapy ( Transtympanic injection of antibiotics that are toxic to inner ear)
- ⊠ Endolymphatic decompression
- ⊠ Labyrinthectomy

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# Complication:-

- ⊠ Partial or total loss of hearing.
- ⊠ Constant tinnitus
- ⊠ Permanent balance disability
- ⊠ Fear, phobia
- ⊠ Dehydration
- ⊠ Decrease quality of life
- ⊠ Trauma from falling

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# Nursing management:–

- ❖ Impaired auditory sensory perception R/T altered state of the ear.
- ❖ Anxiety R/tthreat to changes health status.
- ❖ Body image disturb R/T vertigo.
- ❖ Risk for fluid volume deficitR/T increase fluid output, altered intake.
- ❖ Risk for injury R/T altered mobility & vertigo.

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The logo of Galgotias University, featuring a stylized 'G' composed of several curved, overlapping bands in shades of yellow, blue, and red.

# OTOSCLEROSIS

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## DEFINITION

- Slow formation of spongy bone in the otic capsule, particularly at oval window

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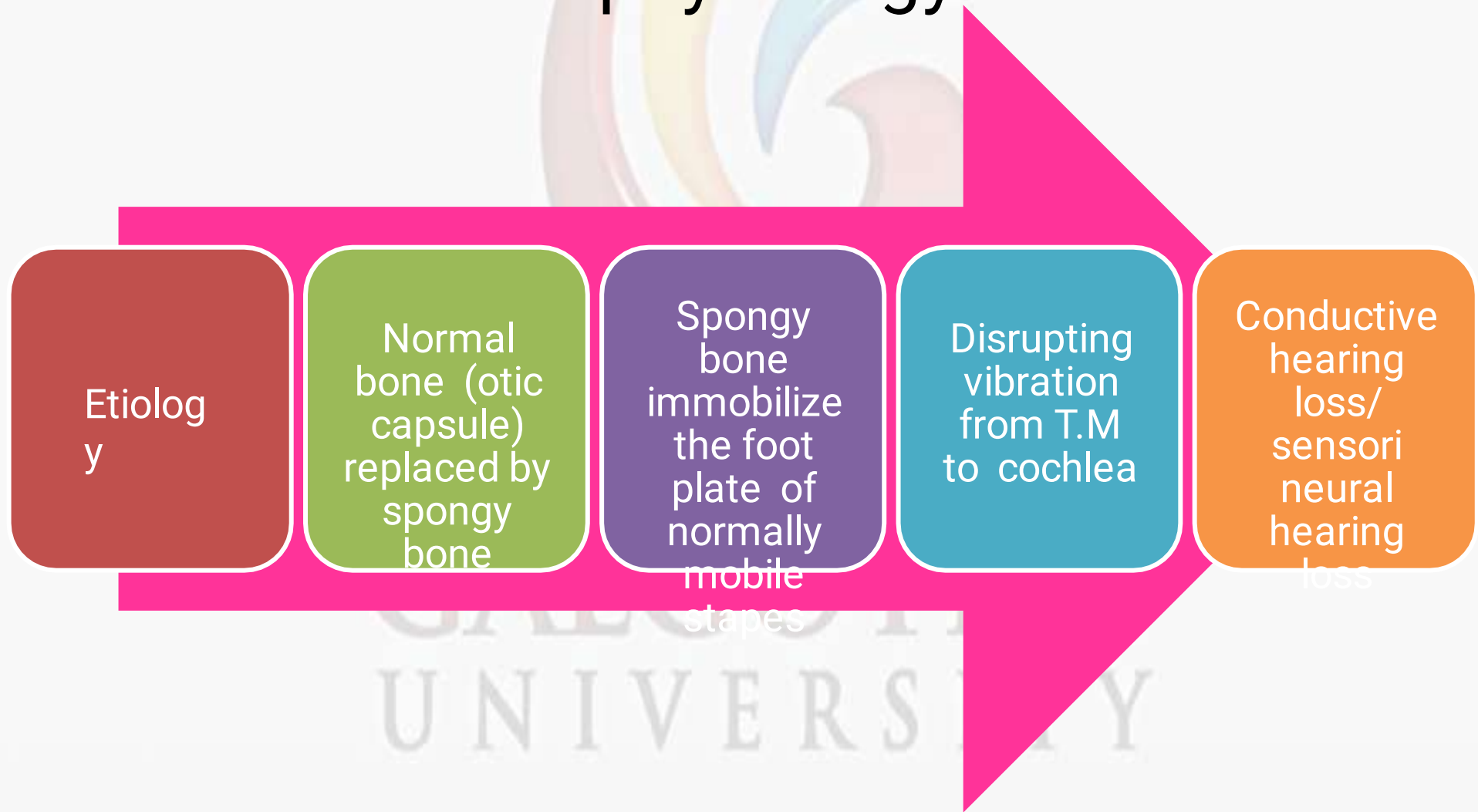
## CAUSES

- Hereditary
- Age of onset : 15-35 years
- Pregnancy

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# Pathophysiology



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## CLINICAL FEATURES

- Hearing loss
- Tinnitus
- Vertigo

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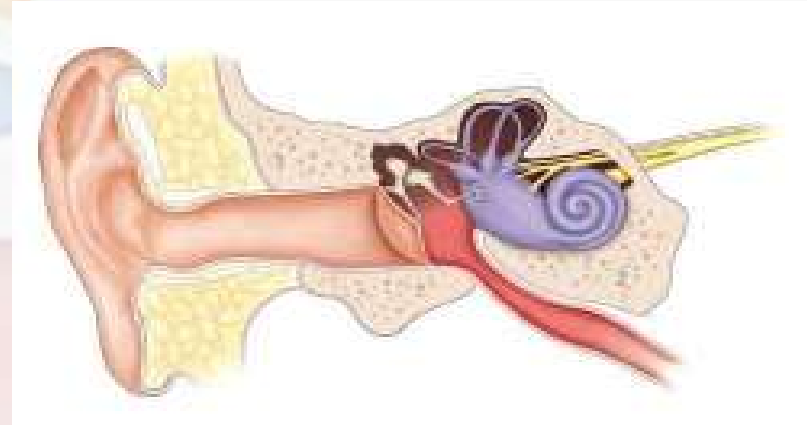
# DIAGNOSIS

- H.C
- P/E
- Rinnes test – bone conduction > Air conduction
- Otoscopy – pinkish orange (schwartz sign)
- Audiometry – 60 dB

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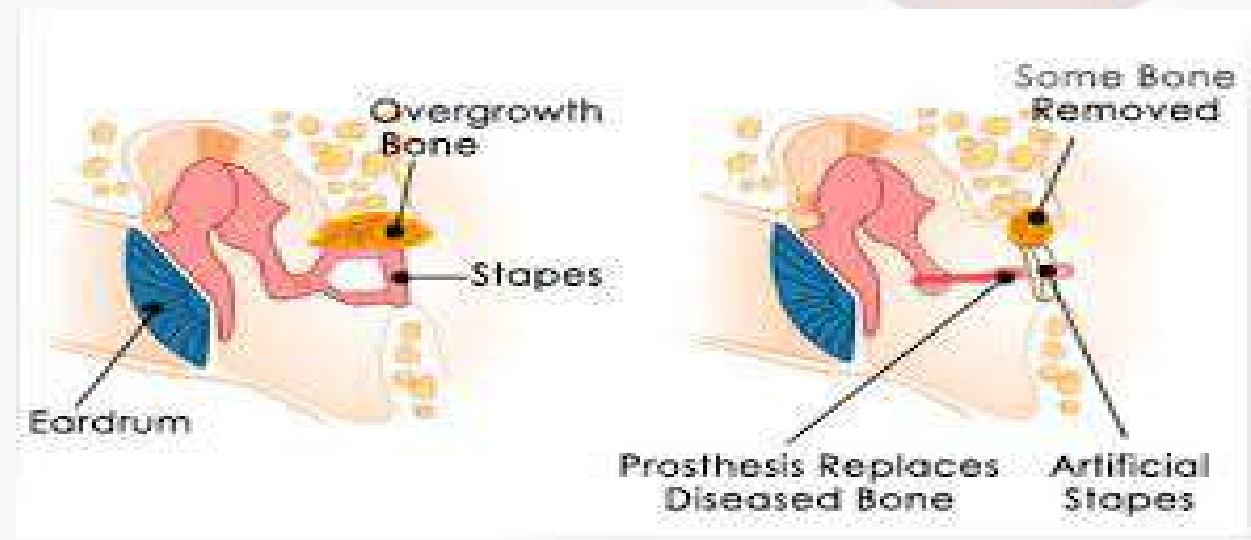
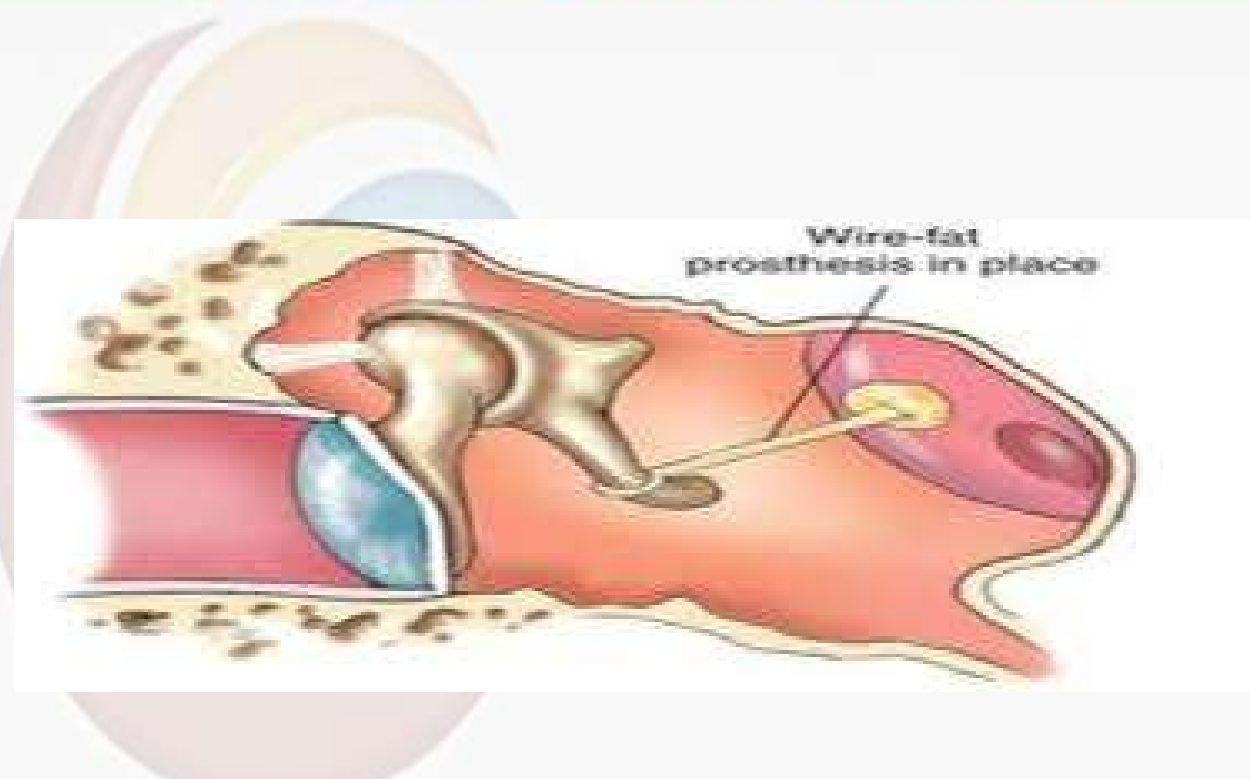


# MANAGEMENT



- Hearing aid
- Surgery
  - stapedectomy (removal and insertion of prosthesis to restore hearing of stapes) and Stapedotomy (creation of small hole in footplate of stapes) and insertion of wire and piston as a prosthesis to help restore hearing

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**THANK YOU**

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