

BABA EDUCATIONAL SOCIETY INSTITUTE OF PARAMEDICAL  
COLLEGE OF NURSING  
CHINHAT, LUCKNOW

ASSIGNMENT  
ON  
TUNING FORK

SUBMITTED TO-

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# TUNING FORK

- Is a small metal instrument consisting of a stem, two prongs and a foot piece, that produces a constant pitch when either prong is struck against a firm but resilient surface.
- It is usually made of steel, magnesium or aluminium that is used to tune musical instruments by musicians and now used by doctors to assess hearing.
- It vibrates sinusoidally to generate a pure tone. Used to differentiate between conductive and sensorineural hearing loss.
- Test is performed with different types of frequency like 128, 256, 512, 1024, 2048 Hz. Routine practices 256 Hz, 512 Hz, 1024 Hz are used.
- Larger forks vibrate at slower frequency.
- Tuning fork is activated by striking against examiner's elbow, heel of hand and placed 2cm away from EAC for Air conduction and on mastoid for bone conduction.

## • SENSORY HEARING LOSS (SNHL) :-

→ Sounds delivered to the ear via BC will be decreased.

### TYPES :-

- Rinne Test
- Weber Test
- ABC Test
- Schwabach Test
- Gelle's Test
- Bing Test

### RINNE TEST :-

- Proposed by Heinrich Adolf Rinne (1855).
- Air conduction is compared with bone conduction.
- The base of vibrating tuning fork is placed firmly over mastoid process.
- Patient is asked to indicate when sound disappears suddenly the tuning fork is placed vertically 2cm from EAC.
- If hears still - AC more than BC.
- Rinne Positive, i.e. Normal.
- Normal value : - 20 seconds bone conduction  
- 30-40 seconds air conduction.


  
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# WEBER TEST :-

- Proposed by Ernst Heinrich Weber.
- A test of lateralization.
- Quick screening test for hearing.
- The patient is asked to report in which ear the sound is heard louder.
- Normal value: sound is heard equally loud in both ears (no lateralization) = indifferent Weber.
- However a patient with symmetrical hearing loss will have the same findings.
- The vibrating tuning fork is placed in the middle of the forehead equidistant from the patient's ears, the patient is asked to report in which ear the sound is heard louder.
- Weber with lateralization to the lesion side.
- If there is a unilateral sensorineural hearing loss: vibrations do not reach the lesion side, only the healthy side.
- Weber with lateralization to the healthy side.

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