# CLINICAL SKILLS: EAR EXAMINATION

*To conduct a thorough examination of the ear, you need to systematically inspect, palpate, examine with an auroscope and carry out special tests.*

- **Wash hands**
- **Introduce yourself and ask permission to examine the patient**
- **Position the patient sitting down. Sit directly opposite them so you are examining them at eye level**
- **Ask the patient if their hearing is better on one side or the same in both (*you should examine the better side first*). Also check if they have any pain currently.**

**Inspect**

- Pinna, auricule, helix, antihelix
- For any visible wax, discharge or bleeding
- Preauricular sinuses
- Behind the ear - any surgical/trauma scars?
- Hearing aids
- The meatus itself - wide?

**Palpate**

- Tug gently on the pinna - any tenderness?
- Press over the mastoid process - any tenderness?
- Palpate for any cervical or periauricular lymphadenopathy

**Auroscopy**

- Turn on the auroscope and ensure the light is working
- Put a plastic tip on the end of the auroscope (appropriate to size of the ear - children need smaller tips)
- Gently hold the ear up and back to straighten the ear canal (children have straighter canals so you do not need to pull the ear upwards)
- Gently insert the auroscope
- Look at the canal wall - any wax/discharge/bleeding?
- Tympanic membrane:
    - Perforation
    - Light reflex/bulging
    - Grommets
    - Cholesteatoma
    - Chalk deposits
    - Fluid bubbles (effusion)

**Special tests**

- Free field hearing tests/whispered voice hearing tests
- **Weber test** (use this in conjunction with Rhinne test to detect an abnormality and ascertain whether a deficit is sensorineural or conductive in origin)
    - Put the vibrating tuning fork on the centre of a patient's forehead. Ask the patient if the sound is louder in one ear, and if so, which one.
    - Results:
        - Normal result:
            - The sound can be heard equally in both ears
        - Abnormal result:
            - In conductive deafness, sound is loudest in abnormal ear
            - In sensorineural deafness, sound is quietest in abnormal ear

- **Rhine test**
  - Examine each ear in turn
  - Put the vibrating tuning fork just in front of the ear (not touching it), then on the mastoid process. Ask the patient to tell you which position was loudest for them.
  - Results:
    - Normal result:
      - The sound is heard best at the mastoid process
    - Abnormal results:
      - In conductive deafness, the sound is heard best at the mastoid process
      - In sensorineural deafness, the sound is heard best in front of the ear
  - Note that you will get a false negative Rhinne positive if the patient has a non functioning ear on the side being tested, as they can actually hear the sound of the vibrating tuning fork on the opposite ear

**To end my examination:**

- Examine the facial nerve for signs of damage (the course of the facial nerve runs close to the auricular canals)
- Offer to refer the patient for formal audiometric testing (if the examination was abnormal)