



Radiographic Techniques 2

lecture 1

Lines & planes of projection of the skull

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Lines & planes of projection of the skull

Landmarks of the skull

1. **Outer canthus of the eye:** the lateral point where the upper and lower eyelids meet.
2. **Infraorbital margin/point:** the lowest point of the inferior rim of the orbit.
3. **Nasion:** the articulation between the nasal and frontal bones.
4. **Glabella:** a bony prominence found on the frontal bone immediately superior to the nasion.
5. **Vertex:** the highest point of the skull in the median sagittal plane.
6. **External occipital protuberance (inion):** a bony prominence found on the occipital bone, usually coincident with the median sagittal plane.
7. **External auditory meatus (EAM):** the opening within the ear that leads into the external auditory canal (Fig.1).

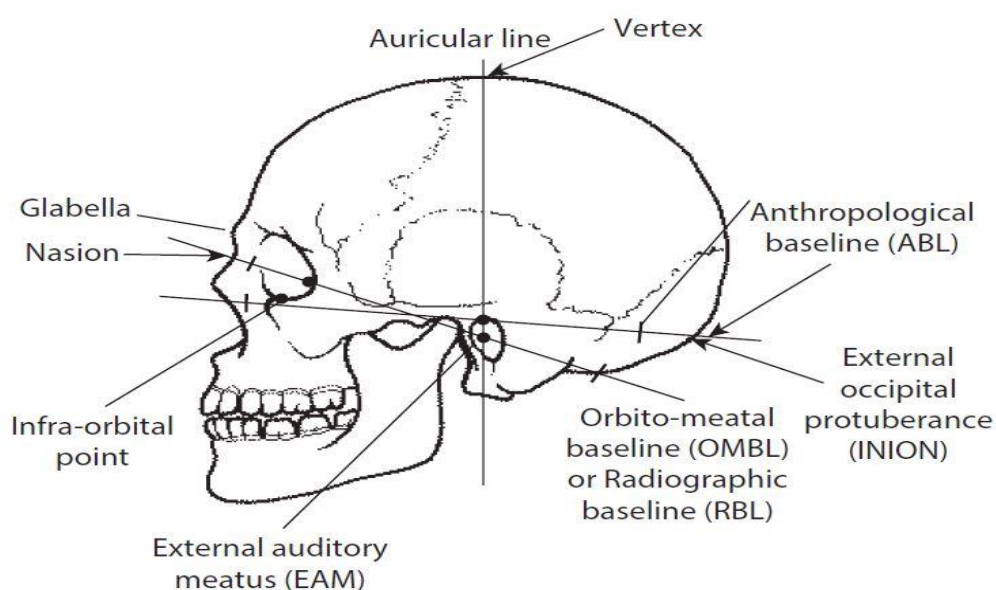


Figure (1): Landmarks of the skull

Lines of the skull

- 1. Interpupillary (interorbital) line:** joins the centre of the two orbits or the centre of the two pupils when the eyes are looking straight forward.
- 2. Infraorbital line:** joins the two inferior infraorbital points.
- 3. Anthropological baseline:** passes from the infraorbital point to the upper border of the EAM (also known as the Frankforterline).
- 4. Orbito-meatal baseline (radiographic baseline):** extends from the outer canthus of the eye to the centre of the EAM. This is angled approximately 10° to the anthropological baseline (Fig.2).

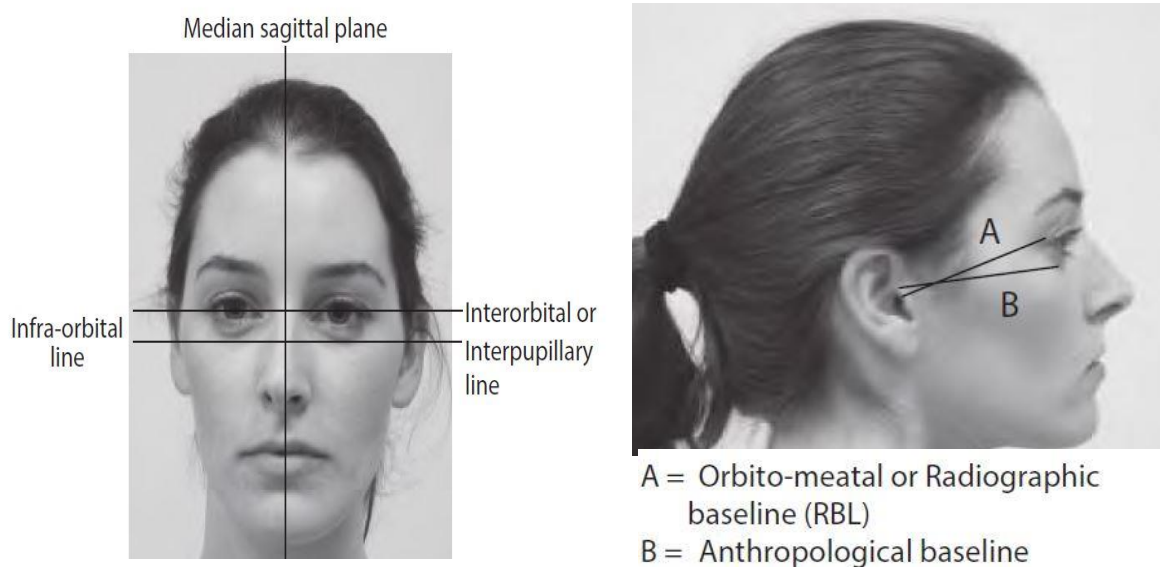


Figure (2): Lines of the skull

Planes of the skull

Three common planes as used in skull are as follows:

1. **Median sagittal plane:** divides the skull into right and left halves.
*Landmarks on this plane are the nasion anteriorly and the external occipital protuberance posteriorly.
2. **Coronal planes:** are at right-angles to the median sagittal plane and **divide the head into anterior and posterior parts.**
3. **Axial (Anthropological) Plane:** is a horizontal plane that divides the head into superior and inferior portions (Fig.3).

* **Auricular plane:** perpendicular to the anthropological plane and passes **through the centre of the two EAMs.** It is **an example of a coronal plane.**

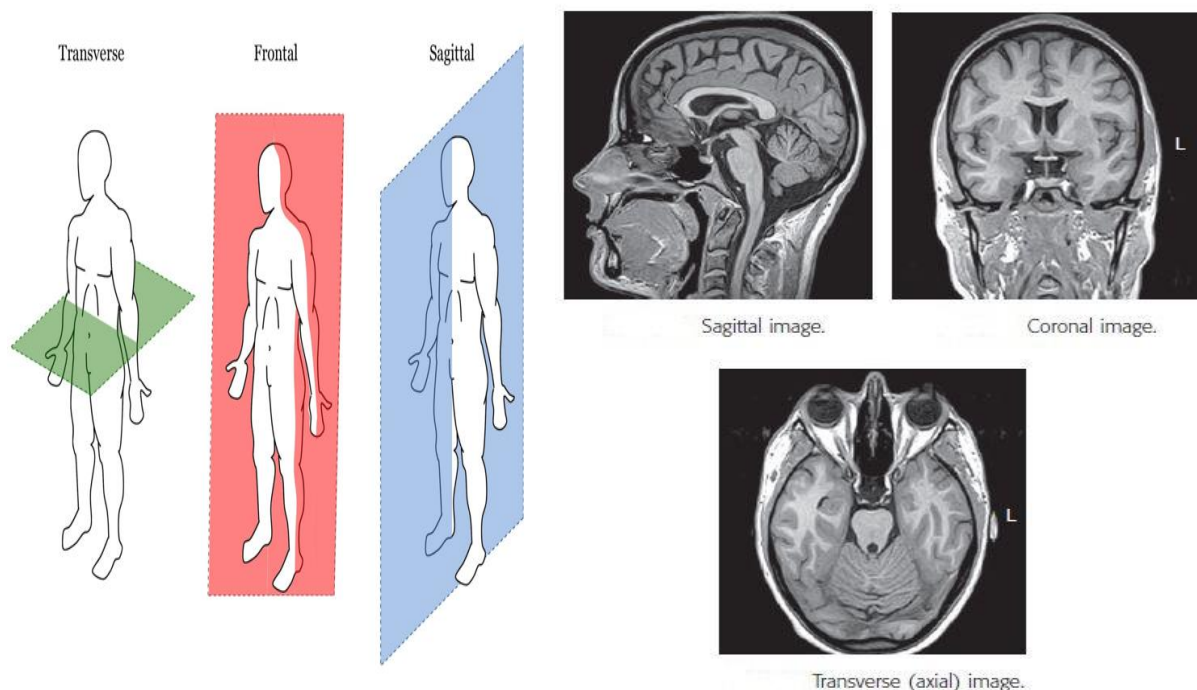


Figure (3): Planes of the skull.