

# Diploma in Pharmacy 1<sup>st</sup> Year

## Human Anatomy & Physiology Practical

### To study the human skull bone.

#### **Aim:**

To study the human skull bone.

#### **Reference :**

Dr. Gupta G.D , Dr. Sharma Shailesh , Dr. Sharma Rahul Kumar ,“Practical Manual of Human Anatomy and Physiology” Published by Nirali Prakashan , Pg.No 33 - 38

#### **Theory :**

- 1) The skull is divided into two parts. The brain and face are covered by the skull. It is made up of numerous bones that develop separately but eventually fuse together as they mature.

#### **Skull bones are divided into two groups:**

1) **Bone of Cranium:** 8 bones combine together to form Cranium.

I. **Frontal Bone:** The forehead and the root of orbit are made of this bone  
Following are the features of frontal bone:

- a) **Supraorbital Margin :** It arises from the archaean of orbit.
- b) **Nasal Notch :** They are fitted on the bone projecting between supraorbital margins.
- c) **Superciliary Arch :** It is present above the supraorbital margin and nasal notch.
- d) **Frontal Tuberosities:** These are the two prominences of the forehead
- e) **Frontal Sinus :** It is a space behind the forehead. It contains air and is lined by mucous membrane.

II. **Parietal Bones :** They are two in number and emerge from the roof and sides of the skull.

- III. **Temporal Bones** : They are two in number and form the lower part of the sides of the skull.
- IV. **Occipital Bone** : It is present at the back and lower part of the cranial cavity
- V. **Sphenoid Bone** : It is present at the base of the skull and it forms a large part of middle cranial fossa.
- VI. **Ethmoid Bone** : It is a very light and thin cubical shaped bone, which is present at the roof of nose and in between the orbit

## **Cranial Fossa**

The base of the skull is divided into three fossa:

- Anterior Cranial fossa
- Middle Cranial fossa
- Posterior Cranial fossa

## **Fontanelles**

The child's skull bones are not completely ossified when he/she is born. Membranes occupy the gaps in between the bones. These membranes at the angles of the bones are termed fontanelles.

i) **Anterior Fontanelle:** It is of diamond shape and is the largest. It is situated at the junction of the frontal and parietal bones.

ii) **Posterior Fontanelle:** It is located at the back. It is situated at the junction of the frontal and occipital bones.

## **Sinuses of the Skull**

These are cavities or chambers present in the bone of the skull:

- Frontal sinus
- Maxillary sinus
- Ethmoid and sphenoidal sinus

**2) Bone of the Face:** These are 14 bones which make the face.

These bones are;

- I. **Maxillae:** They are two in number and form the upper jaw.
- II. **Mandible: Mandible:** This bone is the only movable bone of the skull  
and it forms the lower jaw.
- III. **Palate Bones:** They are two in number and form the roof of the mouth  
cavity and the hard bone.
- IV. **Zygomatic Bones:** They are two in number. They form a part of the  
floor of the orbit each of them containing a temporal process.
- V. **Lacrimal Bones:** They are two in number and are found in the  
interior of the orbit. They contain lacrimal sac which secretes  
the lacrimal fluids .
- VI. **Inferior Turbinate Bones:** They are two in number and are also  
known as nasal conchi.
- VII. **Vomer Bone:** It forms the lower part of nasal septum.
- VIII. **Hyoid Bone:** It is a v shaped bone and is attached to the base, of  
the
  - a. tongue and to styloid process by means of ligaments.

## **Result:**

The human skull was studied in detail.