

Orbital cavity

- We have superior, inferior, lateral and medial walls
- The interior wall is not present
- We have walls participate formal peace. This cavity is very important because it has two openings ,one opening is more superior which is the superior orbital fissure and the other one is the inferior orbital fissure
- The superior orbital fissure lies between the body or between the body and the Lesser sphenoid wing with the greater sphenoid wing. The inferior one lies between the maxilla end or maxillary part of the bone that makes the inferior wall together with the greater sphenoid.
- In addition to that we have very important opening that occurs at the level of the lesser wing of the sphenoid that is the optic foramina (foramina is round opening within structural or continuous structural bone) so this foramina is very important because it will pass through it the objective nerve

Nasal cavity

- The nasal cavity is more complex rather people caring with the orbital cavity

- The nasal cavity practically it has walls as well and these walls are the superior, inferior, lateral and medial
- The nasal cavity practically is divided into two parts by two portion of structure one is a bony structure and that is visible when we are looking at the skull and when we are looking at human being living organism we will see it is completed by septum that is a hyaline cartilage septum, and that will divide the nasal cavity into two compartments one in the left ,one in the right each one is called nares
- nasal cavity practically has an external opening and internal opening so its communicating similar to the orbital cavity, its communicate with these openings superior and inferior fissure and optic nerve foramina
- we have internal nostrils and external nostrils(opening of the nose) outside the external one, internal nostrils communicate with region that is located posterior to them and is called nasophagus that continue downward into nasopharenx connected with oropharenx and reach to esophagus (المريء)
- nose continuous interior, nasal septum is practically extended more interior with cartilaginous septum ,septum is made of two portion interior portion cartilaginous and posterior surface which is bony surface, this is bony surface belong to a bone that is located in the middle of the nose that is called ethmoid

and the particular end of this septum so we are talking perpendicular (عامودي) plate of ethmoid bone, in the inferior aspect of this septum there is another attachment which is completely this is bony attachment is made by vomer bone

- Its complex because of maxilla because it is irregular in shape ,it has a horizontal space inside the nose it is called hard palate is made by palatine process of maxilla and other one by palatine bone and that what we called it the floor of nose
- Superior aspect of this cavity is made by (because they are two portion) horizontal plate of ethmoid, in addition to that small portion which is sphenoid bone.
- if you are looking at face from frontal aspect we will see this is ethmoid bone has a figure like skale,it is made of horizontal plate and perpendicular plate(divide nose into left and right portion)
- The Expansion of perpendicular plate is called crista galli and the lateral aspect(left and right aspect) of crista galli is an opening within horizontal plate(perforation) this partically host olifactory sinus, this small space through which olfactory nerves pass into the brain is called cribriform plate

- If you see the upper part of skull, take out brain ,in the superior aspect you will able to see crista galli and cribriform plate
- The rest of the bone is hidden by horizontal plate of temporal bone that covers most upper part of horizontal plate of ethmoid bone
- Ethmoid masses (left and right masses) have a medial surface which form the lateral walls of the nose.
- these masses have a projection inside nose they are called concha,two concha expand the nasal cavity to increase contact of air with meucas membrane that cover the nose these are called superior and middle concha,these masses has opening that is called sinuses that reduce the weight of bone cells (skull) and increase the voice tone
- Superior and middle concha belong medial wall of ethmoid sinuses.
- inferior concha(its a bone by itself) not belong middle masses of ethmoid bone

- Below concha we have something called meatus, we have three concha and three meatus.
- Maxilla shelf like projection inside the bone
- Cribriform plate which is communication of the nose with the cranial cavity

Paranasal sinuses

- The Bones of face are characterized by having spaces these space are filled with air and very thin mucus membrane and mucus secretion these are called sinuses(الجيوب),in sphenoid bone which is the key bone of the head has bigger opening is sphenoidal sinuses
- Maxillary sinus be infected the most due to penetrate in upper teeth

عند زراعة الاسنان يمكن ان تحفر وبالتالي تحفر الجيوب فيها ويسبب
(sinusitis) التهاب في الجيوب

- Temporal bone, mastoid process of temporal bone, in this process if its heavy the head will go back or move to the right or to the left, so it empty and these emptiness are called

cells ,they are opening within the substances of the bone and these are called mastoid air cells, and its different from sinuses

- All sinuses communicate with the nose these communication practically is very important because they drain in case of infection
- The temporal bone is empty from the inside (hollow), otherwise the head will be heavily pulled to the back.
- Hiatus semilunaris is the opening of the maxillary sinus, also some ethmoid cell, and the ethmoid bulla opens in the summit this invagination.

Mandible bone

- The last bone will talk about in the face that will form the shape of the face that is not belong to facial bones it symphysis bone articulate with temporal bone but it symphoral bone that what we called it mandible(jum) inferior aspect of the mouth
- This bone has two portion one body and one vertical portion that is oriental posterior called the rums of the bone ,we have an angle between body and rums that everybody can touch
- Body has superior border that has a U shape, host teeth, host

into spaces and these spaces are called alveolar processes

- Inferior border is smooth, you can touch all the way from angle to another angle

Temporal bones

- The squama of temporal bone articulate with very important structure that is expansion of greater wing of sphenoid this is portion is very dangerous because all three or four bones they meet in very weak point, if someone hit you in the lateral aspect you will might die because middle cranial arch
- Meatus(قناة مغلق اخرها)
- Temporal bone portion(visible) is: squama,mastoid portion
- We have two processes:mastoid,styloid(sharp)
- These processes is very important because they will provide ligation of the muscles that go into the neck and hyoid bone
- Temporal process of zygomatic bone articulate with zygomatic process of temporal bone to form arch
- Arch is beauty aspect of the face the more pronounced the

more face is beautiful

- Petrous portion is pyramidal
- Petrosal part of temporal bone host middle and inner ear, it has a posterior and interior aspect, interior aspect face medial cranial fossa, posterior aspect face posterior cranial fossa
- In posterior view, we have foramen magnum(big)
- In posterior view we have lines these lines are for what we called it the insertion of muscles that are called superior and inferior nuchal lines
- External occipital protuberance(meeting of two superior nuchal lines)
- Sphenoid bone is key bone of the cranial
- Sella turcica(square portion), sella(القهوة التركي فنجان)
- It has interior aspect ,posterior aspect they are protecting these cavity that is located in superior aspect of the sphenoid bone into which very important gland is located there that is called hypothesis gland
- Lesser wings separate interior cranial fossa of medial cranial

fossae(two fossa)that is separated by the body of sphenoid bone