

The skull is composed of **cranial bones**, forming a vault for the brain, and **facial bones**, giving origin to the muscles of facial expression and providing buttresses to protect the brain. Except for the temporomandibular joint (a synovial joint), all bones are connected by generally immovable fibrous sutures which, over time, tend to ossify into synostoses.

The orbit is composed of seven bones (C, E, F, I, J, K, and L), one of which (K) makes a very small contribution to the floor of the orbit and is not visible in these drawings. The orbit, which has two fissures and one canal, is home to the eye and related muscles, nerves, and vessels. The most delicate of the skull bones is at the medial orbital wall (I). The external nose is largely cartilaginous and is therefore not part of the bony skull except for the **nasal** bones.

At certain sites of the skull, the bone is particularly thickened into pillars (*buttresses*). These maintain a strong resistance to forces imposed on it by transmitting forces away from the vulnerable orbits, nasal cavities, and brain, and therefore resisting fracture. Three of the most obvious are the superior, lateral, and inferior orbital buttresses that you can readily feel on yourself. There are buttresses around the mouth (masticatory), at the point of the chin (mental tubercle), and the back of the skull (**occipital**) as well.

Numerous foramina provide a passageway for cranial nerves and blood vessels into and out of the interior of the cranium and skull. Many of these neurovascular passengers are identified on page 23. Note the three paired foramina in the vertical plane above and below the orbit, and in the **mandible**. These are exit sites for the supraorbital, infraorbital, and mental nerves that supply sensory fibers to the skin of the face. They are all cutaneous branches of the three divisions of the trigeminal nerve (V^1 , V^2 , and V^3 ; see page 83).

Place your finger in your ear while making chewing motions and looking at the lateral view of the skull around the external auditory meatus on the adjacent illustration. That is the condyle of the mandible that you feel coming up against the floor of the external auditory meatus (canal). Just above this you can feel the **zygomatic arch**, and deep to that is the temporalis muscle and its strong fascial covering (page 45). This bony-musculo-fascial wall helps protect the middle meningeal artery (which rides in a groove on the internal surface of the **temporal** bone) following an impact to the side of the head.