Central lobe
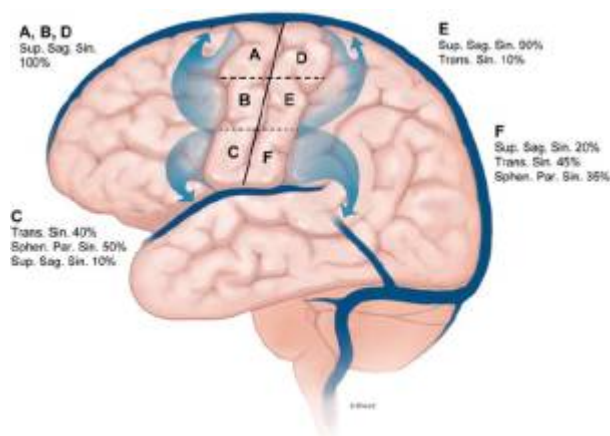
The central lobe consists of the precentral gyrus and postcentral gyrus on the lateral surface and the paracentral lobule on the medial surface and corresponds to the sensorimotor cortex.

The coronal suture is closer to the precentral gyrus and central sulcus at its lower rather than at its upper end, but they are closest at a point near where the superior temporal line crosses the coronal suture. The arterial supply of the lower two-thirds of the lateral surface of the central lobe was from the central, precentral, and anterior parietal branches that arose predominantly from the superior trunk of the middle cerebral artery. The medial surface and the superior third of the lateral surface were supplied by the posterior interior frontal, paracentral, and superior parietal branches of the pericallosal artery and callosomarginal artery. The venous drainage of the superior two-thirds of the lateral surface and the central lobe on the medial surface was predominantly through the superior sagittal sinus, and the inferior third of the lateral surface was predominantly through the superficial sylvian veins to the sphenoparietal sinus or the vein of Labbé to the transverse sinus.

The pre- and postcentral gyri and paracentral lobule have a morphological and functional anatomy that differentiates them from the remainder of their respective lobes and are considered by many as a single lobe. An understanding of the anatomical relationships of the central lobe can be useful in preoperative planning and in establishing reliable intraoperative landmarks [1].

Central lobe tumor

see Central lobe tumor.

[1]

Frigeri T, Paglioli E, de Oliveira E, Rhoton AL Jr. Microsurgical anatomy of the central lobe. J Neurosurg. 2015 Jan 2:1-16. [Epub ahead of print] PubMed PMID: 25555079.