

# Occipitotemporal sulcus

Synonym(s):occipito-temporal sulcus, inferior temporal sulcus (Szikla), inferior temporal sulcus-2, inferior temporal sulcus (Roberts), third temporal sulcus, inferior temporal fissure (Crosby), lateral occipitotemporal sulcus.

The occipitotemporal and [collateral sulcus](#) on the basal surface of the [temporal lobe](#) are two prominent sulci that can serve as landmarks for locating the [temporal horn](#)<sup>1)</sup>. The occipitotemporal sulcus is located between the [inferior temporal gyrus](#) and the [fusiform gyrus](#). The collateral sulcus is located medial to the fusiform gyrus and it bulges into the lateral part of the floor of the middle and posterior thirds of the temporal horn<sup>2)</sup>.

Wen et al. analyzed the occipitotemporal and rhinal sulci as landmarks to the temporal horn. These authors found that when approaching the mesial temporal structures from the superior or lateral surface of the temporal lobe, dissection is initially performed through the white matter toward the floor of the middle fossa until the gray matter overlying an anterior basal sulcus is encountered. Once identified, dissection was continued medially and superiorly from the top of the gray matter until the temporal horn was entered. These authors concluded that the gray matter overlying the occipitotemporal sulcus is a reliable landmark for the temporal horn, however, this sulcus was not always present. The gray matter overlying these sulci is a useful landmark for locating the anterior portion of temporal horn<sup>3)</sup>.

When viewing the temporal lobe in the coronal plane, the superior and inferior temporal, occipitotemporal, and collateral sulci point radially toward the lateral end of the temporal horn<sup>4)</sup>. The bottom of the collateral sulcus is located closest to the temporal horn<sup>5)</sup>.

[1\)](#) , [2\)](#) , [3\)](#) , [4\)](#) , [5\)](#)

Wen HT, Rhoton AL, Jr, Marino R., Jr Gray matter overlying anterior basal temporal sulci as an intraoperative landmark for locating the temporal horn in amygdalohippocampectomies. Neurosurgery. 2006;59(4 Suppl 2):221-7. ONS.

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