CEREBRUM CONTINUES....

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SUPEROLATERAL SURFACE FRONTAL LOBE

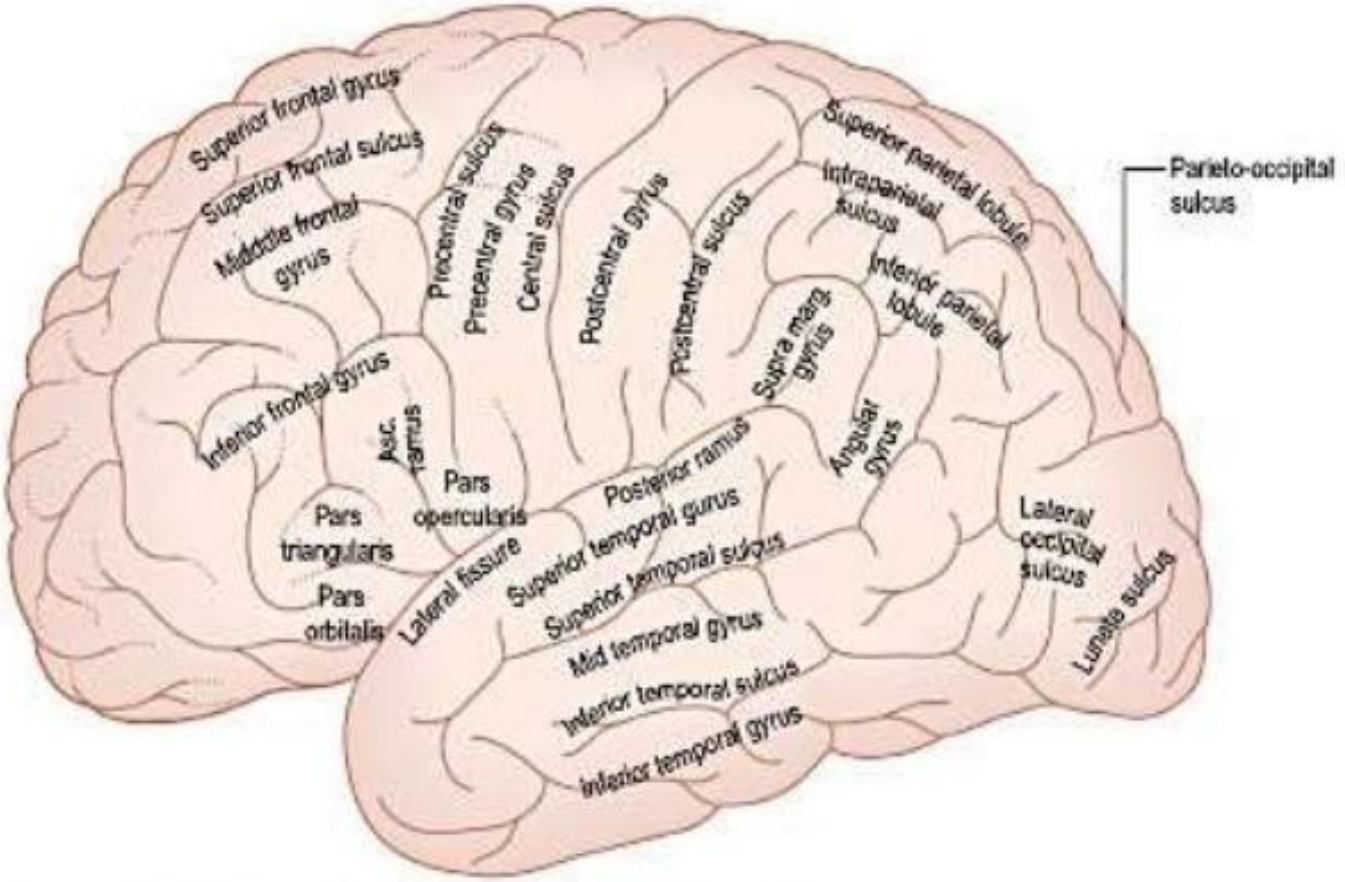
Precentral sulcus: runs downwards and forwards parallel and anterior to central sulcus.

Precentral gyrus: area between Precentral sulcus and central sulcus.

Superior and inferior frontal sulcus: anterior to precentral gyrus, two sulci run in anteroposterior direction.

Superior, middle and inferior frontal gyri: area divide by Superior and inferior frontal sulcus.

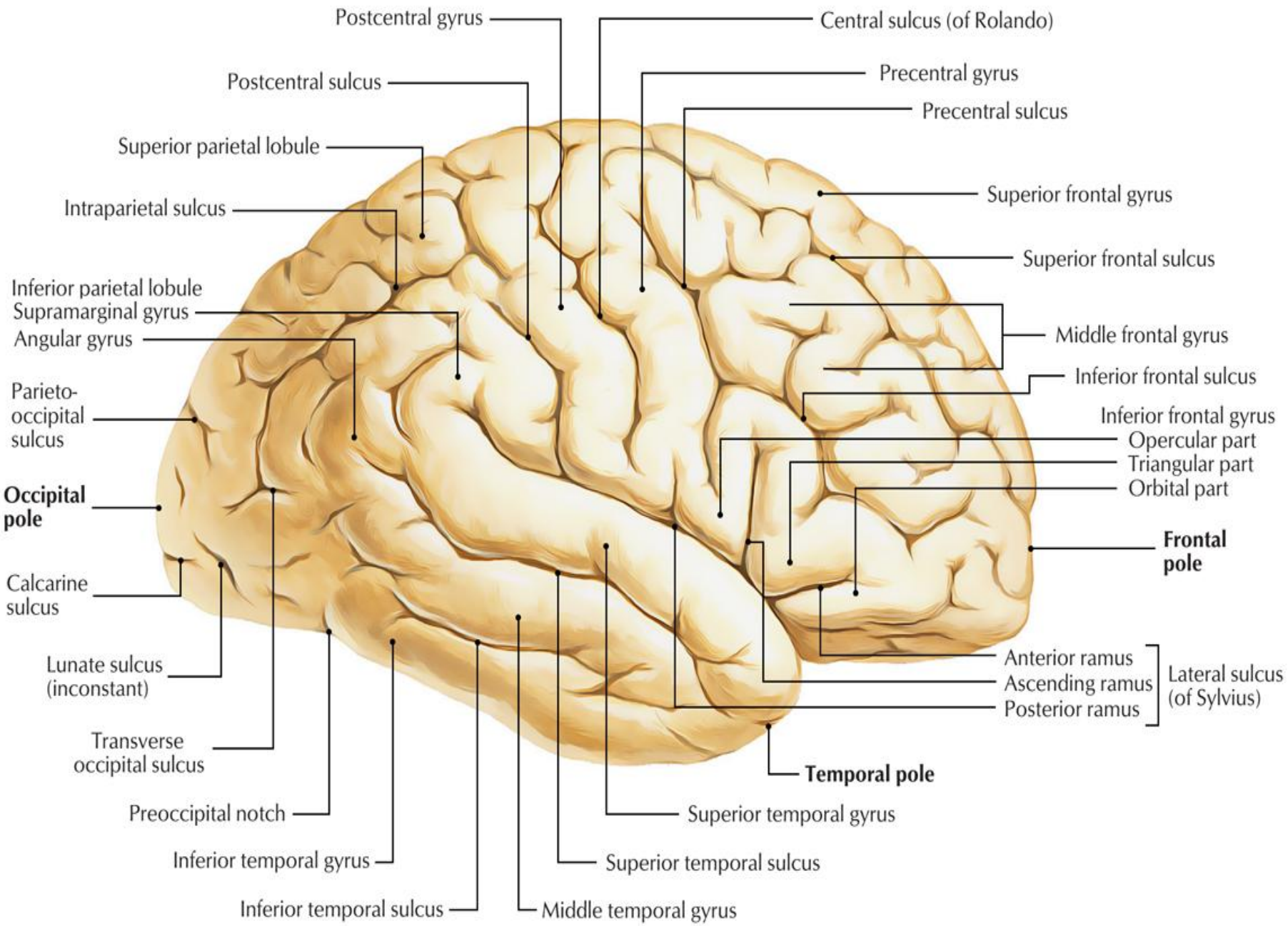
superolateral surface



CONT...

Anterior and ascending rami of lateral sulcus extend into inferior frontal gyrus dividing into three parts:

- Pars orbitalis: part below anterior ramus
- Pars triangularis: between anterior and ascending rami
- Pars opercularis: posterior to ascending ramus


Postcentral gyrus
Central sulcus (of Rolando)
Postcentral sulcus
Precentral gyrus
Precentral sulcus
Superior parietal lobule
Superior frontal gyrus
Intraparietal sulcus
Superior frontal sulcus
Inferior parietal lobule
Supramarginal gyrus
Middle frontal gyrus
Angular gyrus
Inferior frontal sulcus
Parieto-occipital sulcus
Inferior frontal gyrus
Opercular part
Triangular part
Occipital pole
Orbital part
Frontal pole
Calcarine sulcus
Anterior ramus
Lateral sulcus (of Sylvius)
Ascending ramus
Lunate sulcus (inconstant)
Posterior ramus
Transverse occipital sulcus
Temporal pole
Preoccipital notch
Superior temporal gyrus
Inferior temporal gyrus
Superior temporal sulcus
Inferior temporal sulcus
Middle temporal gyrus

TEMPORAL LOBE

- Superior and inferior temporal sulci: parallel to posterior ramus of lateral sulcus.
- Superior, middle and inferior temporal gyri: Superior and inferior temporal sulci divide superolateral surface of temporal lobe into three gyri.

PARIETAL LOBE

- Postcentral sulcus: runs downwards and forwards parallel and behind the central sulcus.
- Postcentral gyrus: area between Postcentral sulcus and central sulcus.
- Intraparietal sulcus: rest of parietal lobe is divided into superior parietal lobule and inferior parietal lobule.
- superior parietal lobule and inferior parietal lobule

CONT...

- Supramarginal gyrus: part that arches over upturned posterior end of posterior ramus of lateral sulcus.
- Angular gyrus: part that arches over superior temporal sulcus
- Arcus temporooccipitalis: part that arches over posterior end of inferior temporal sulcus

OCCIPITAL LOBE

- Lateral occipital sulcus: Horizontal
- Superior and inferior occipital gyri : Lateral occipital sulcus divide the occipital lobe in these gyri.
- Lunate sulcus: downwards and forwards just in front of occipital pole.
- Gyrus descendens: vertical strip just in front of Lunate sulcus.
- Transverse occipital sulcus: uppermost part of occipital lobe
- Arcus parieto-occipitalis

INSULA

- Insula (hidden) = Part of cerebral hemisphere in depth of stem and posterior ramus of lateral sulcus.

- Opercula (lids) = During development of cerebral hemisphere this area grows less than surrounding areas which, therefore, come to overlap it and occlude it.

CONT...

- Frontal operculum = anterior and ascending rami of lateral sulcus.
- Frontoparietal operculum = above posterior ramus of lateral sulcus.
- Temporal operculum = below posterior ramus of lateral sulcus.
- Anterior and posterior transverse temporal gyri = gyri present on superior surface of temporal operculum.

INTERPEDUNCULAR FOSSA

- Interpeduncular fossa: anterior to midbrain, depressed area on inferior surface of cerebrum.
- Closely related to floor of 3rd ventricle.
- Boundary: front = optic chiasma

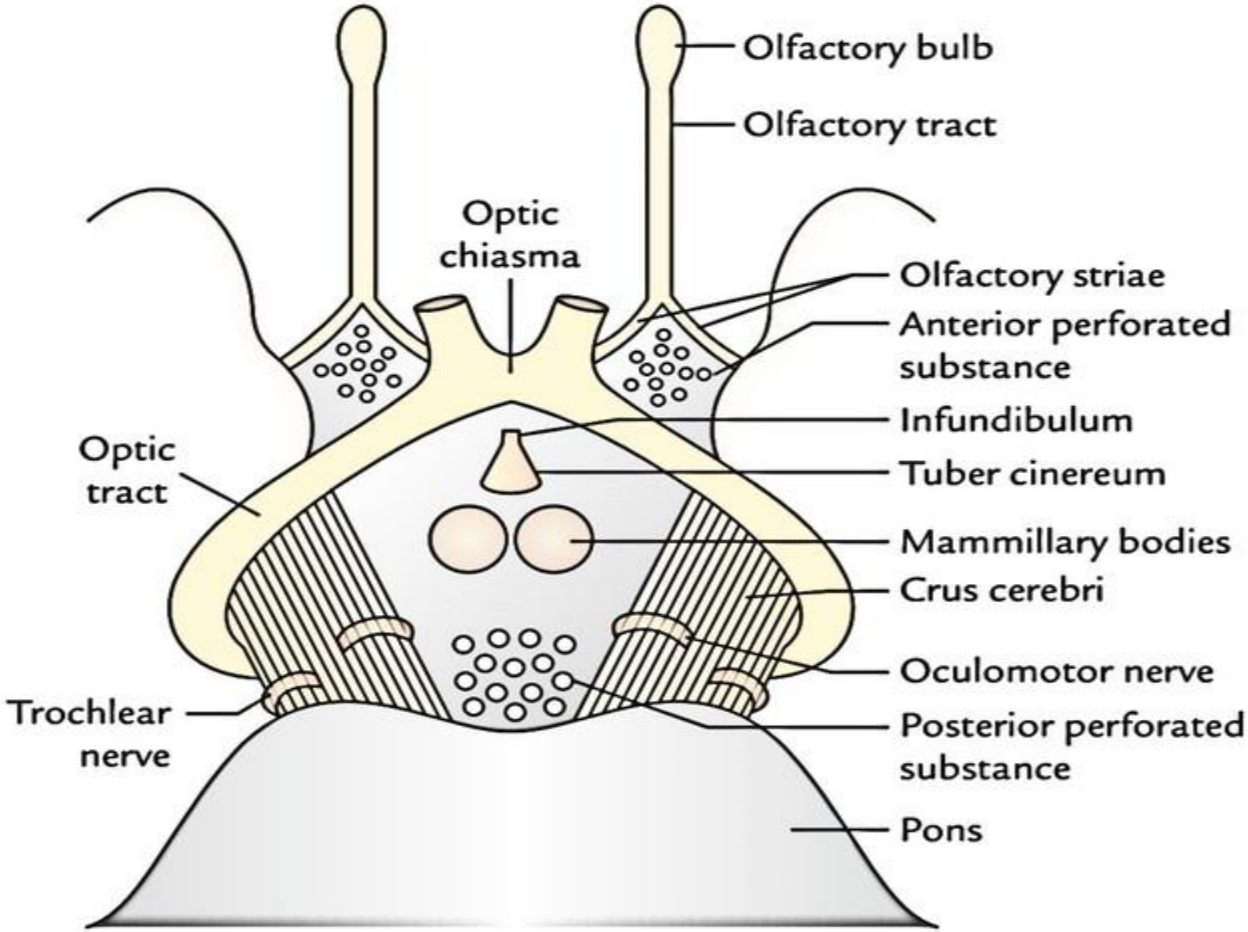
  sides = right and left optic tracts and cerebral peduncles

  posterior = upper border of pons

Medial and lateral geniculate bodies: optic tracts wind round the sides of midbrain to terminate on its posterolateral aspect where two swelling are present.

Contents:

1. Mamillary bodies: rounded swellings anterior and medial to crura of midbrain
2. Tuber cinereum: anterior to mamillary bodies, median elevation. Infundibulum of hypophysis cerebri present.
3. Posterior perforated substance: triangular interval between mamillary bodies and midbrain is pierced by small blood vessels
4. Anterior perforated substance: each side of optic chiasma, numerous small blood vessels
5. Occulomotor nerve


Olfactory bulb
Olfactory tract
Optic chiasma
Olfactory striae
Anterior perforated substance
Infundibulum
Optic tract
Tuber cinereum
Mammillary bodies
Crus cerebri
Oculomotor nerve
Trochlear nerve
Posterior perforated substance
Pons

INTERPEDUNCULAR FOSSA

Boundaries:

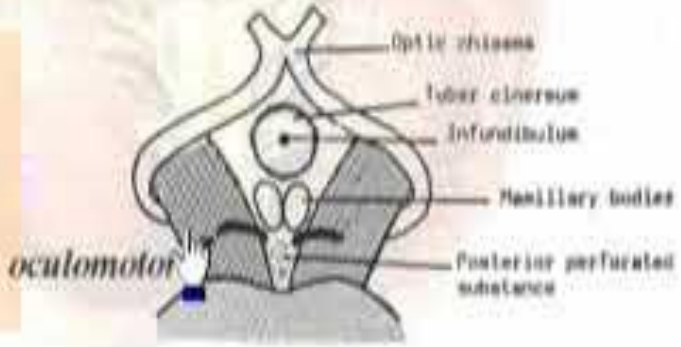
- This is a rhomboidal space which has the following boundaries:

1. optic chiasma anteriorly.
2. optic tracts anterolaterally.
3. cerebral peduncles posterolaterally.
4. upper border of pons posteriorly.

Contents:

- arranged from before backwards are:

1. Tuber cinereum : which is an elevation connected to the neurohypophysis by the infundibulum.
2. mammillary bodies
3. posterior perforated substance
4. oculomotor nerves



Prof.Dr. Ahmed M.Kamal

INFERIOR SURFACE OF CERBRUM

Introduction

The inferior surface is irregular. It is divided into an anterior part, the orbital surface and posterior part the tentorial surface .

The two parts are separated by a deep cleft called the stem of lateral sulcus.

Inferior Surface / orbital surface

1.- Parallel to medial orbital border there is the olfactory sulcus : between them there is the gyrus rectus .

The rest of the orbital surface is sub divided by an H shaped sulcus into anterior , posterior, medial and lateral orbital gyri.

2. The stem of the lateral sulcus lies deep between the temporal lobe and the orbital surface.

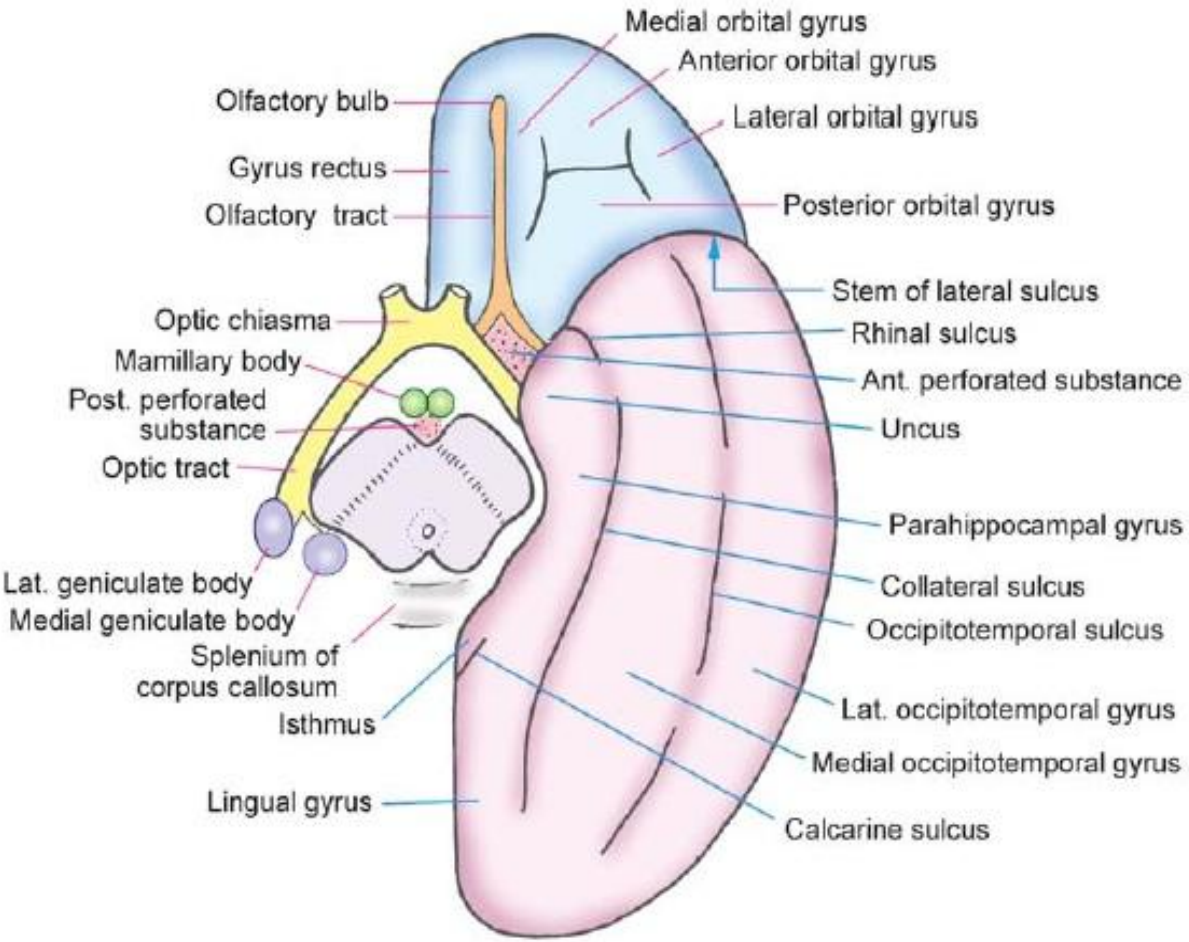


Fig. 8.7. Structures to be seen on the inferior aspect of the cerebrum. The midbrain has been cut across.

CONT...

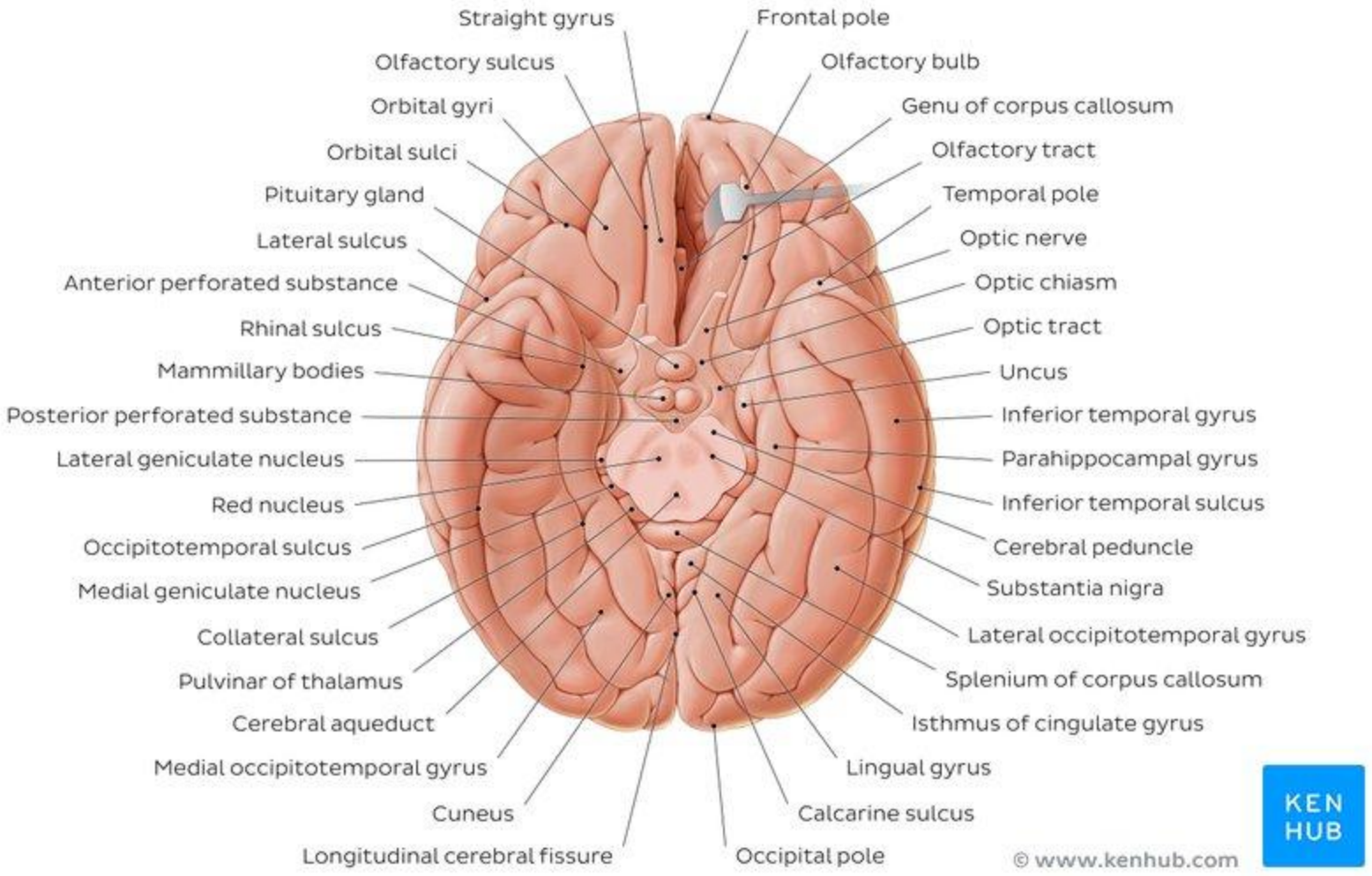
Tentorial Surface / inferior surface .

- This area presents two sulci running antero-posteriorly . The medial one is the collateral sulcus and lateral is the occipitotemporal sulcus . On the medial side of the temporal pole there is RHINAL Sulcus.

CONT..

The gyri are as follows

1. The part medial to the Rhinal sulcus is the Uncus.
2 The part medial to the collateral sulcus is the Parahippocampal gyrus. It's posterior part is limited medially by the Calcarine sulcus . It is joined to the Cingulate gyrus through the isthmus.
3. The part lateral to the collateral sulcus is divided into medial and lateral occipitotemporal gyri by the occipitotemporal sulcus.


Straight gyrus
Olfactory sulcus
Orbital gyri
Orbital sulci
Pituitary gland
Lateral sulcus
Anterior perforated substance
Rhinal sulcus
Mammillary bodies
Posterior perforated substance
Lateral geniculate nucleus
Red nucleus
Occipitotemporal sulcus
Medial geniculate nucleus
Collateral sulcus
Pulvinar of thalamus
Cerebral aqueduct
Medial occipitotemporal gyrus
Cuneus
Longitudinal cerebral fissure
Frontal pole
Olfactory bulb
Genu of corpus callosum
Olfactory tract
Temporal pole
Optic nerve
Optic chiasm
Optic tract
Uncus
Inferior temporal gyrus
Parahippocampal gyrus
Inferior temporal sulcus
Cerebral peduncle
Substantia nigra
Lateral occipitotemporal gyrus
Splenium of corpus callosum
Isthmus of cingulate gyrus
Lingual gyrus
Calcarine sulcus
Occipital pole
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CONT...

- Inferior surface
- Olfactory sulci
- H-shaped orbital sulci
- Collateral sulci
- Rhinal sulci
- Occipitotemporal sulci

CONT...

- Inferior surface Gyrus
- Gyrus rectus
- Anterior orbital
- Posterior orbital
- Medial orbital
- Lateral orbital
- Lingual
- Uncus
- Parahippocampal
- Medial occipitotemoral
- Lateral occipitotemloral